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GSCA Conference, Victoria, Vancouver Sept. 10–13

The Giant Screen Cinema Association held its annual conference and trade show in Victoria, BC, Canada, Sept. 10–12, followed by Dome Day in nearby Vancouver on Sept. 13. Nearly 300 people attended the meeting, which featured screenings of 21 New Films, presentations on 18 Films in Production and six Films in Development, four professional development sessions, a technical session, and an awards ceremony.

Screenings in Victoria were held in the **IMAX Victoria** in the **Royal BC Museum**, a 406-seat house with an IMAX laser projector and a 61x84-foot (19x26-meter) screen. The theater opened in 1998 and converted to IMAX laser in March 2016.

Dome Day was hosted by **Science World at Telus World of Science**, whose 400-seat OMNIMAX theater uses a 15/70 film projector in an 88.6-foot (27-meter) dome, one of the largest in the world. (Unlike recent Dome Days, no digital full-dome system was available for the session.) Originally built for the Expo 86 world's fair, the theater and the distinctive geodesic dome housing it were converted to a science center in 1989.

Giant Screen 101

The conference began, as usual, with a session intended to acquaint newcomers with the differences between giant-screen and conventional cinema and television production and exhibition. Organized by GS veteran **Diane Carlson** of **Giant Screen Cinema Consulting**, the session was moderated by **Paul Wild**, manager of the host theater. Six presenters spoke about various aspects of making and showing GS films.

Caroline Borgudd, head of marketing for Cosmonova, the IMAX Dome theater in the **Swedish Museum of Natural History** in Stockholm, described how she and her team had marketed **Imax Corporation's Pandas** (2018). The 27-year-old theater is a sub-brand distinct from that of the museum, and has a separate \$170,000 marketing budget. Emphasizing "quality over quantity," Borgudd only launches two new films per year, but gives both of them major marketing pushes.

Cosmonova's launch of *Pandas* featured videos, social media postings, and appearances by 14-year-old Swedish twins Iza and Elle. The girls are social media influencers with over 800,000 Instagram followers in the youth demographic the theater wanted to reach. Recommended to Cosmonova by a media agency, they were paid \$10,000 – about a quarter of the film launch budget – for their participation. The theater also partnered with the **World Wildlife Fund's** youth club, Panda Planet, an obvious and natural connection that benefited both sides. Finally, two museum scientists were part of the project team from the start, and they were able to expand the film's reach into the museum's exhibits by, among other things, discovering a 100-year

(see *GSCA* on page 6)

Giant Screens and High Frame Rates

by James Hyder

Gemini Man, an action thriller directed by **Ang Lee**, starring **Will Smith**, and distributed by **Paramount Pictures**, opened in October, renewing debate about the place of advanced technologies such as high frame rate (HFR) in cinema. Like Lee's previous film, *Billy Lynn's Long Halftime Walk* (2016), *Gemini Man* was shot in native 4K 3D at 120 fps. However, unlike the earlier film, which was shown in true HFR in only five theaters globally, more than 2,500 North American theaters screened *Gemini Man* in 3D HFR (60 or 120 fps), giving the HFR experience a much wider exposure than any previous Hollywood release.

This article will examine some of the artistic, technical, practical, and other considerations involved in capturing and presenting movies – whether Hollywood dramas or GS documentaries – in HFR, and the ramifications of the technology for the GS business.

Background

When sound was introduced to motion pictures in the late 1920s, hand-cranked cameras and projectors were no longer practical, and frame rates between 16 and 20 fps weren't fast enough for high-quality audio. A standard film speed was needed, and 24 fps was selected as fast enough for sound fidelity, and to convey the illusion of motion, without using too much film.

(see *HFR* on page 9)

Premiering in Oct. and Nov.

Back from the Brink
Out of Bounds

See page 15.

Inside LF Examiner

Tale of Three Domes	2
Toni Myers' Celebration of Life	3
In Production	12–13
Premiering This Month	15
Bookings Data	16–21
Directory	22–23
Classified Ads	23
Shorts	24

Three Domes Convert from Film to Digital

This fall, three giant-screen domes have converted from 15/70 film to digital projection, two of them to the 4K IMAX laser dome projector — the third and fourth installations of the system — and the other to **D3D Cinema**'s three-projector 6K system, the third of that type.

Saint Paul, MN

On Oct. 17, the Omnitheater at the **Science Museum of Minnesota** reopened with the new IMAX system after being closed since early August. The 340-seat Omnitheater, which opened in December 1999, is one of only two theaters in the world that can convert between dome and flat-screen presentations. The flat screen is 66x90 feet (20.1x27.4 meters), and the dome is 90 feet (27.4 meters) in diameter, making it one of the world's largest domes.

Along with a single 4K IMAX laser projector and the 12-channel IMAX sound system, the upgrade included a new show control and automation system from **Sparrow Audio Visual** in Birmingham, AL. Unlike many other such renovations, there was no need to replace the seats, carpets, or dome screen, according to technical manager **Chris Demko**. Construction was limited to "some minor modifications to the doghouse to accommodate the height of the new projection system" and new carpet and paint in the queuing area. Demko says the transition went smoothly: "There were no major unexpected issues that impacted the timeline or budget of our conversion."

The Omnitheater's retired IMAX GT film projector is now on display in the queuing area with cover panels removed to reveal its inner workings.

Mobile, AL

The **Gulf Coast Exploreum Science Center** reopened its 177-seat dome theater on Nov. 2 after being closed since August. The 21-year-old IMAX GT film projector was replaced with a new system from **D3D Cinema** that uses three **Christie** laser projectors to display a 6K image on the 59-foot dome. It is the third such system, following installa-

tions in Cleveland and Chicago, and the first to use Christie's latest second-generation projectors that offer an expanded contrast ratio.

The upgrade also included a new 5.1 sound system, new seats and carpets, a visual description system, and new lighting equipment. A separate, DCI-compliant insert projector will allow the theater to show second-run Hollywood films. The \$2 million project was funded by the **Poarch Band of Creek Indians**, longtime supporters of the museum and theater, which has been renamed the Poarch Band of Creek Indians Digital Dome Theater.

The museum's executive director, **Don Comeaux**, tells *LFX* that he is thrilled with the image and sound quality of the new system, and that it goes well beyond his expectations.

Saint Louis, MO

In late July the OMNIMAX Theater at the **Saint Louis Science Center** closed for a renovation that is replacing its 28-year-old IMAX GT film projector with the IMAX laser dome projector. The theater is expected to reopen on Nov. 29.

In addition to the projector and IMAX sound system, the theater is getting a new **Spitz** NanoSeam dome screen, news seats, LED stair lights and event lighting, and enhanced accessibility systems. The wider custom seats from **Figueras** reduce the seat count from 315 to 269, including five wheelchair spaces and companion seats. A new stage will enhance presentations and special events. The \$3.25 million project was privately funded.



Left: IMAX laser dome projector being installed in the Science Museum of Minnesota.
Right: The Gulf Coast Exploreum installing the D3D system with three Christie laser projectors.

Hundreds Celebrate Toni Myers' Life in Toronto

About 260 colleagues, friends, and family members attended a celebration of the life of GS filmmaker **Toni Myers** at the Canadian headquarters of **Imax Corporation** outside Toronto on Sunday, Sept. 22. The event was organized by Myers' son **Jackson Myers**, who is senior creative director at Imax.

The afternoon began and ended in the facility's 184-seat IMAX theater, which was officially named the Toni Myers IMAX Theatre shortly before the event. Jackson Myers introduced several speakers who memorialized his mother, including composers **Maribeth Solomon** and **Mickey Erbe**, who scored a dozen giant-screen films spanning Myers' entire career, from *North of Superior* in 1971 to *A Beautiful Planet* in 2016; astronaut **Marsha Ivins**, who appeared in or helped with several of the IMAX space films; and **Greg Foster**, who oversaw several of Myers' films during his tenure as president of Imax Entertainment.

Several themes emerged in the speakers' tributes to Myers: the excellence she embodied in her work and inspired in those she worked with, her attention to detail, her love of music and its influence on her work, and the love and respect she shared with everyone around her.

Erbe recalled that during a studio mixing session Myers might be working on a script or some other task on her ever-present MacBook, but would suddenly look up and say "Was that trombone note flat?" At the end of every recording session, in thanking the musicians and engineers, she made them all feel that "what they were contributing was indispensable to her" and the film.

On video, **Mary Martin**, a talent manager, record executive, and long-time friend of Myers (and Jackson's god-mother), told of Myers helping her record a demo of a then-unknown **Leonard Cohen** in the bathtub of Martin's Greenwich Village apartment in 1966.

Astronaut Marsha Ivins said that over the 25 years that IMAX cameras flew to space, "Toni wrangled 139 Type-A astronauts into being the actors, the directors,

the producers, the cinematographers, the sound guys. And through all of that Toni was the glue. She had the ear, she had the eye, she had the mind, and most of all she had the heart to tell the story that has left this legacy of what we did in space. But probably the biggest gift that she gave all of us who trained with her and got to know her is that we got to call her friend."

Greg Foster said "she charmed everyone in Hollywood she met, filmmakers like **Chris [Nolan]**, A-list actors, heads of studios." But she was always meticulously prepared for business meetings. When he and Myers went to pitch *A Beautiful Planet* to **Alan Horn**, head of **Walt Disney Studios**, she had a 20-minute presentation fully mapped out. Five minutes into it, Horn enthusiastically said, "I'm in!" Foster was ready to take yes for an answer and leave, "but Toni would have nothing to do with it! She said, 'I have prepared this pitch, and I'm not leaving until I finish it.' Alan repeated, 'But Toni, I'm in.' She said, 'I'm not finished.'" So Horn let her finish and then greenlit the film. Foster pointed out that there is no one else in the world who has directed the stars who narrated Myers' films: **Tom Cruise**, **Johnny Depp**, **Leonardo DiCaprio**, **Jennifer Lawrence**, **Kate Winslett**, **Jim Carrey**, and **Leonard Nimoy**. "And every one of them adored her, respected her, and were honored to be in a Toni Myers movie."

Jackson Myers credited retired Imax exec **Jennifer Rae** with helping fulfill his mother's wish to spend the last few months of her life at home with friends and family by coordinating volunteers to help with the many tasks that needed to be done to free the family's time. His voice choking with emotion, he spoke to her in the audience: "You were already a busy

person, and you took on a 24/7 job. You took on and you absorbed so much so her family could spend quality time with her." In addition to all that, Rae led the effort (with Imax co-founder **Graeme Ferguson**, his wife, **Phyllis Ferguson**, and others) to have Myers made an Officer of the Order of Canada, the country's second-highest honor, a week before she died.

Jackson closed by thanking Graeme Ferguson for his friendship and mentoring of his mother. "We wouldn't be here right now if it weren't for you, literally."

The presentation closed with a 17-minute reel of footage from Myers' films assembled by Imax's **David** and **Patricia Keighley** that included clips from *North of Superior*, *The Dream Is Alive*, *Destiny in Space*, *Space Station 3D*, *Hubble 3D*, *A Beautiful Planet*, and *Rolling Stones at the Max*.

A reception followed in the atrium of the Imax offices, the walls of which had been decorated with blowups of snapshots from Myers' life, from infancy to her final days.

The afternoon concluded with screenings of *North of Superior* and *A Beautiful Planet*.

Among those present were: **Diane Carlson**, **Donna Cox**, **David Douglas**, Graeme Ferguson, **Munro Ferguson**, **Phyllis Ferguson**, **Gord Harris**, **David Keighley**, **Patricia Keighley**, **Julie La Roche**, **Stephen Low**, **Mike Lutz**, **Wendy Mackeigan**, **Cory Mandel**, **Marty Mueller**, **Hugh Murray**, **James Neihouse**, **Tammy Seldon**, and **Glenn Shaver**.



The reception in the atrium of Imax Corp. HQ in Mississauga.

THE BIZ

NEWS

Cosmic to make New England film

Museum of Science, Boston, has selected **Cosmic Picture** to produce a signature giant-screen film about New England exclusively for the museum's Mugar Omni Theater. According to a press release, the 30-40 minute film will feature "stunning visuals and stories featuring the innovations, natural wonders, residents, landmarks, seasons, and characteristics that define New England." It will not be distributed to other giant-screen theaters.

The untitled film will be written and directed by Cosmic's **Daniel Ferguson**, produced by **Taran Davies**, and photographed by **Reed Smoot**. Camera tests start this fall, with shooting planned from February to October of 2020 for an expected release in 2021. Ferguson tells *LF Examiner*, "I'm excited at the prospect of designing something from the ground up and optimized for their dome venue."

The project is being funded entirely by **MathWorks**, a Massachusetts-based developer of mathematical computing software and long-time supporter of the museum and theater.

The Mugar is a 72-foot (23-meter) IMAX Dome theater that has run 15/70 since opening in 1987. It will be converted to the single-4K-projector IMAX laser dome system next spring.

It is extremely unusual for a GS film to be fully funded by a single entity and not to be distributed to the network of GS theaters. The New England film will be the first exclusive signature film since **Texas: The Big Picture**, made for the **Bullock Texas State History Museum** in Austin in 2003.

A handful of signature films have been made in the nearly 50-year history of the GS business, a few of them shorts of three to ten minutes, with several more made at the standard 25-40-minute length. Theaters that commissioned films about their local areas or histories include Winnipeg, Canada (**Heart Land**, 1987); San Antonio, TX (**Alamo: The Price of Freedom**, 1988); Singapore (**Homeland**, 1990); and Branson, MO (**Ozarks: Legacy and Legend**,

1993). Between 1984 and 2001, **MacGillivray Freeman Films** made four GS films about Indonesia for the **Keong Emas IMAX Theatre** in Jakarta.

Other than *Texas*, which played briefly in a few other theaters in the state, all of those films ran exclusively in their home theaters. This sets them apart from destination films like **Grand Canyon: The Hidden Secrets** (1985) and **Niagara: Miracles, Myths, and Magic** (1987), and other titles, like **North of Superior** (1971) and **To Fly!** (1976), which were made for a specific theater but were widely distributed to others as well.

Imax reports \$9M profit in Q3

For the third quarter ending Sept. 30, 2019, **Imax Corporation** posted a net profit attributable to common shareholders of \$9.0 million (\$0.15 per share) on revenues of \$86.4 million, compared to a profit of \$5.0 million (\$0.08 per share) on revenues of \$82.1 million in the third quarter of 2018. For the nine months ending on Sept. 30, the company reported a profit of \$28.7 million (\$0.47 per share) on revenues of \$271.4 million, compared to \$21.2 million (\$0.33 per share) on revenues of \$265.4 million in the same period last year.

The company signed deals for 30 theater systems, including eight upgrades, and installed 39 (nine upgrades) in 2019's Q3, compared to 37 signings (12 upgrades) and 37 installs (one upgrade) in the same period of 2018. The backlog of systems signed for but not installed stood at 607 as of Sept. 30, 2019, compared to 635 as of a year earlier. The total number of IMAX theaters at the end of 2019's Q3 was 1,568, of which 1,473 are in multiplexes, and 95 are in institutions or commercial standalone venues. The total a year earlier was 1,443.

In a conference call with analysts, CEO **Richard Gelfond** reported that in China, "our strong momentum continues into the second half of the year with mainland China IMAX box up 27% in local currency terms year-to-date through Oct. 7, after

the national holiday, compared to 3% growth for China's overall box office. With only 1% of the screens, IMAX is far outpacing the industry and gaining market share."

Gelfond also said that the company has begun a program to certify "certain top-of-the-line digital cameras to shoot 'in IMAX' when paired with our proprietary post-production technology." (In 2014 the company unveiled a 4K 3D digital camera it had developed, and the next year it partnered with German camera-maker **Arri** to modify the digital Arri Alexa 65 as an IMAX-branded system. But as cameras have progressed rapidly to 6K, 8K, and beyond, these earlier systems have become hopelessly outdated. This is probably why Imax has given up on making or even branding hardware as "IMAX," and is now labeling a combination of cameras and post as filming "in IMAX.")

In 2020 at least five features will be identified as "filmed in IMAX," although only one of those, **Christopher Nolan's Tenet**, opening in July, is being captured primarily on 15/65 film. The next James Bond film, **No Time to Die** (April 8) will feature action sequences shot on film, as will **Wonder Woman 1984** (June 5), according to reports from early 2018. Others, such as Chinese-language actioner **Detective Chinatown 3** (Jan. 25) and **Top Gun: Maverick** (June 26), are being shot entirely with digital cameras.

3ality going out of business

3ality, which created advanced digital 3D rigs for such film and television productions as *The Martian*, the *Hobbit* trilogy, *Transformers*, and *U2 3D*, is going out of business. According to founder and former CEO **Steve Schklair**, "the business of shooting native 3D is no longer robust enough to support the overhead...so the company is ending operations and will most likely sell the remaining equipment overseas."

However, Schklair personally owns "a fair amount" of 3D gear that he will rent to producers, including systems he devel-

THE BIZ

PERSONNEL

oped to shoot GS footage for *Transformers*: a 3ality TS2 rig, its proprietary real-time image alignment processing, and Arri 65 cameras. Schklair says he “remains available to co-produce or consult, and recently finished a museum project as a stereographer, working with the acclaimed director **Wim Wenders**.” He can be reached at steve@schklair.com.

Bastean named CEO in St. Louis

In October, Missouri’s **Saint Louis Science Center** named **Todd Bastean** as its new president and CEO, replacing interim head **Barbara Boyle**, who had served since the previous president and CEO, **Bert Vescolani**, left in 2018 to head the Denver Zoo.



Todd Bastean

Bastean comes to the science center from Bunge Limited, a supplier and processor of grain products, where he recently retired as president of North American businesses, after a 25-year career at the company. He was a member of the center’s board of trustees for three years.

Daniels moves to Mystic Aquarium

C. Rodney Daniels has been named senior director of operations and guest experience at the Mystic Aquarium in Mystic, CT. In the position, he will oversee operation of the aquarium’s three theaters, retail, dining, and other revenue-generating functions. He will also serve as acting COO in that person’s absence.



Rodney Daniels

Daniels comes to Mystic from the Dallas Zoo, where he was assistant director of guest services for the past year. Before that, he was director of guest services, security, and theater operations at the Audubon Nature Institute in New Orleans, LA, a position he held for nearly 20 years. At Audubon he oversaw the operation of the

Entergy IMAX Theatre, a GT3D-equipped film theater that he converted to Christie 4K digital in 2015.

Daniels holds a Bachelor’s degree in journalism from Southern University and Agricultural and Mechanical College at Baton Rouge.

Val Kass retiring from NSF

Valentine Kass is retiring from her full-time position as program director at the **National Science Foundation** as of the end of the year, concluding 18 years at the agency and 31 years in the giant-screen industry. Since December 2001 she has been responsible for reviewing proposals and awarding 175 NSF grants totaling almost \$250 million to media projects that support informal science education. These include ten completed giant-screen films, from *The Human Body* (2001) to *Amazon Adventure* (2017). Since August 2015 she has also served as liaison to NSF’s Office of Polar Programs (OPP), managing proposals from filmmakers wanting to film in Antarctica, among other duties.

She has received the NSF Director’s Award for Collaborative Integration twice, in 2007 and 2010, as well as an NSF Certificate of Appreciation in 2007. Projects her grants have supported have won Emmys, Peabodys, and GSCA Awards, among many others.

Although retiring from her full-time post, she expects to return to NSF next spring as an “intermittent expert,” to continue her work in the OPP and managing the Antarctic Artists and Writers program.

Before joining NSF, Kass was president of **Valentine Associates**, a consulting firm providing project management to GS films and other media programs, from 1994 to 2001. She advised the producers of ten GS films, with clients including the **Smithsonian Institution**, **National Geographic Society**, **Discovery Channel Pictures**.

In 1995 and 1996 she launched and managed the **Navy Pier IMAX Theater** in

Chicago. From 1988 to 1994 Kass was director of Omnimax production and programs at Chicago’s **Museum of Science and Industry**, where she oversaw the production of *Antarctica* (1991), which won more than 150 leases and grossed over \$100 million.

Before joining MSI, she worked in public television in Chicago and San Francisco. She holds a B.A. in economics from Stanford University and a Masters of urban studies from Yale.

Kass tells *LF Examiner*, “My first IMAX experience was screening *The Eruption of Mount St. Helens* at the **Detroit Science Center** in 1979. I distinctly remember walking out of the theater and exclaiming, ‘Wow, that was awesome! It was like being there!’ Little did I know that just a few



NSF’s Valentine Kass at the South Pole in 2016.

years later the GS film industry would become such a major part of my professional life.”

She adds, “The GS industry provides life-long learning experiences not only for our audiences but for those of us involved in bringing those experiences to the screen. Working in this industry has expanded my world view in countless ways. I am grateful for having had the opportunity to work with this unique format that has such an impact on audiences. Keep those powerful stories coming! I will also be forever grateful for the support and friendship of so many talented colleagues through the years (too many to name here). Thank you!”

GSCA 2019 Conference in Victoria and Vancouver, BC

(from GSCA on page 1)

-old stuffed panda in the collection.

Paul Fraser, of **Blaze Cineworks**, reported on an extensive survey he conducted of giant-screen theater pricing strategies and structures in July 2019. This was a sequel to a similar survey he performed in 2015. He painstakingly visited the Web sites of more than 100 theaters, including all of the GSCA's 76 theater members, and noted the adult prices for theater-only, museum-only, and combination tickets. As a benchmark, he logged the adult ticket price for a nearby multiplex theater in each market. He noted which museums were showing Hollywood films and recorded the number of clicks it took to get from the host institution's home page to ticket pricing information.

The average adult ticket price across all theaters was \$9.31, which represents only a 2% increase since the 2015 survey, and Fraser noted that "a large number of individual theaters didn't take a price increase at all" in that time. Prices at flat-screen theaters were 16% higher on average than for dome screens, and the prices for IMAX theaters averaged 19% higher than non-IMAX. Comparing prices for Hollywood films, he found that museum theaters charge almost exactly the same price for a GS screening as nearby multiplexes charge for a conventional (i.e., non-IMAX) ticket.

The average add-on price (the difference

between a museum-only and a combo ticket) has increased about 5% since 2014, and the average museum-only ticket has increased 13%, while combination tickets are up about 10%.

Fraser defined the "effective discount" as difference between the combo price and the sum of the museum-only and theater-only prices, expressed as a percentage of the larger number. (For example: \$5 museum-only, \$5 theater-only, and \$8 combo yields a 20% discount.) In 2015 the average effective discount was 14.6%, and in 2019 it had fallen to 12.6%.

He also looked at the incidence of theaters that do not offer an option for a separate theater ticket. Some museums include a film with all admissions, while others offer either a museum-only or a combo ticket. A total of 14% of theaters fall in one or the other of these categories, up from 9% in 2015. Only two theaters surveyed did not offer some form of combination ticket.

Julie La Roche of the **Montreal Science Centre** in Quebec, Canada, spoke about an unusual initiative she took to get renewed attention from media outlets that are no longer as excited about covering or reviewing new GS films as they once were. She invited a reporter, selected from several approached about the idea, to join her at the 2018 GSCA conference in Chattanooga, TN, shadowing her in film screenings and meetings. The goal was to give the reporter a behind-the-scenes look at how the museum selects the films it runs and the GS industry in general.

It was a risky proposition because the result would be editorial content, not advertising, so La Roche and the museum would have no control over or prior review of what was published. Nor would they know how large the article would be or where it would appear.

Before the conference, La Roche briefed Marie-Lise Rousseau, of Montreal's *Journal Métro*, on what to expect at the meeting, just as she would have prepared any first-timer. Although Rousseau did not accompany her into private business meet-



Michelle Duncan

ings, they attended screenings and other functions together, and La Roche arranged an interview with Montreal resident **Daniel Ferguson**, the writer, producer, and director of *Superpower Dogs*, which was presented as a new film at the meeting. (La Roche advised the GSCA board of her plan before the conference and obtained its permission.)

La Roche explained, "I had to be careful what I would say. After films you talk to your colleagues: 'What did you think about that film?' I was so boring. No complaints. But you have to be yourself. It's not a show. You want that person to really understand the reality of this industry, that not all films are good for your market. And how we choose the films."

The published result was a large photo of the **Tennessee Aquarium's** IMAX theater on the front page of the paper that teased a full-page spread inside, with sidebars on *Pandas* and an interview with **Toni Myers**, perhaps the last before her death a few months later. Although La Roche had worried that the article might include some negative perceptions, in the end the coverage was entirely positive and better than she could have hoped. The story reached up to 350,000, counting print and online readers.

La Roche says, "I have a new friend and the industry has a new friend. She's been following what we've been doing in the theater since then, and just before [the



Julie La Roche



Paul Fraser

2019] GSCA, [she said], ‘Have a great convention.’ It was marketing dollars well invested. I’m sure your first question is how much did it cost? Airfare, hotel, and meals” for the reporter.

Michelle Duncan of **The Tech Interactive** (formerly the Tech Museum of Innovation) in San Jose, CA, described how she and her staff have made the most of the small space they have for concessions sales in the lobby of the museum’s Hackworth IMAX Dome Theatre, an 82-foot (25-meter) dome with an IMAX laser system. The museum averages 450,000 visitors a year, and the theater expects 200,000 this year.

The total floor space of the concession stand is a cramped 100 square feet (9.3 square meters), “what my Mom would call a ‘two-butt kitchen,’” Duncan joked. With only 15 minutes between shows, time is also at a premium, so maximizing efficiency in every way is a top priority. The menu is limited to popcorn, bagged candy, fountain and bottled drinks, and a kid’s pack that school groups can pre-order. This small selection, along with an easy-to-use register for the cashiers, helps speed up each transaction.

The stand was designed to minimize staff movement, putting most items within arm’s reach. “The more things your cashier can handle immediately from the register, the faster the sale will be.” Including taxes in the posted price, and setting price points to minimize the amount of change

returned also speeds sales. With these and other efficiency measures, the stand can make 30–40 sales per register in 30 minutes. Despite its small size, it generates \$2.04 per visitor for documentaries, and \$5.00 per head for features, totaling more than \$250,000 in gross sales per year.

To simplify cleanup inside the theater, Duncan eliminated individually wrapped candy bars, and keeps drink sizes small enough to consume within a 45-minute film, so that ushers aren’t trying to pick up (and possibly spill) full cups of soda. (Larger cups are sold during feature films.) She also advises against selling Dippin’ Dots flash-frozen ice cream if your theater is carpeted: “Kids like to shoot them with the spoon and they smell like rotten milk. Not good.”

In California, serving food requires a permit from the local health department and designating and training food safety managers, one of whom must be present whenever the stand is open. Someone will also have to be responsible for handling the numerous operational details, such as “inventory tracking, ordering, vendor relations, training of new staff, cleaning checklist compliance, and cash management training and oversight.” Duncan adds, “By giving that part of the operation the attention it deserves, you will definitely see an improvement in your profits.”

“We need to talk...”

Paul Fraser organized and presented a session intended to confront the stagnation the GS business has been experiencing over the last decade or so, and to begin a conversation among all stakeholders about possible structural changes that might turn it around. Four presenters represented the stakeholder segments.

Jeana McNeil of **Isurus Market Research** stood in for GS audiences by presenting the results of a 2014 study of GS theater customers that surveyed over 5,000 people at 36 theaters in 12 countries. Although families with kids are the largest single group, nearly half of visitors are in groups without children, and she recommended that theaters not focus only on children, but remember their adult audiences as well.

Image and sound quality and size of the screen are the major strengths GS theaters offer, but issues such as ticket price, seat comfort, and parking can pose obstacles to more frequent visits. The study suggested that combination tickets, double-feature tickets, a mix of documentary and Hollywood films, and exhibits related to the films are among the best ways to boost attendance.

Stockholm’s **Caroline Borgudd**, representing the theater track, explained that the core product is 40-minute documentaries whose primary audiences are families with children and school groups. Her theater has recently experimented with 20-minute versions, with some success. To meet the museum’s mandate that the theater should break even, they have raised ticket prices by 20% in recent years, without seeing any reduction in attendance. The theater’s marketing materials emphasize the giant-screen experience as well as the content, as the picture [at right??] demonstrates. It promotes both the content of the film, *Oceans: Our Blue Planet*, “and what it *feels like* to be inside that dome theater. We’re showing the *emotion*.”

Representing GS distributors, **Amber Hawtin** of **SK Films** said that distributors are confronting increasing expenditures to create multiple digital versions — upwards of 18 masters — along with the “gigantic” cost of 15/70 filmouts, before they see a dollar of income. This makes the selection of film topic critical: “Is it timely, is it what [theater] clients are looking for, do

(see *GSCA* on page 8)



Jenna McNeil

(from GSCA on page 7)

you think it's going to have broad mass appeal?" In her opinion, the standard 75/25 split between theaters and distributors is no longer sustainable, especially as theaters are doing less local marketing.

As theaters add more and more films to their schedules, as well as alternative content and Hollywood features, distributors end up with fewer slots. Hawtin says one solution is to require a minimum number of shows in the first few months, as Hollywood does. The most important change the industry could make for the sake of distributors would be moving to a standard 70/30 split of the box office.

Cosmic Picture's Daniel Ferguson spoke on behalf of GS producers. Asked about the feasibility of niche films, he pointed to *Jerusalem*, which he produced and directed in 2013, as a "breakout success niche film," which was popular with seniors and other relatively small audience segments. "Maybe you're not going for 130 leases, maybe it's a smaller number, but doing it well. I still think the core business is pleasing 5-year-olds to 85-year-olds."

He worries that as production budgets drop, producers will lose the ability to capture unusual animal behaviors, book 100-piece orchestras, or pay for "classy visual effects." One of the main factors increasing risk for producers is that theaters are showing Hollywood films during the day, taking slots that would otherwise go to documentary films. "What are we doing here? We're going to go out and spend \$8.5 million and \$2 million in marketing [for *Superpower Dogs*], and we get one show a day? We're not going to survive. None of us are."

Asked the maximum amount that any equity partner should invest in a GS film, Ferguson flatly stated "Zero dollars." He used to think that \$3 million was a reasonable equity position, but no more. "I think we're heading to a negligible equity model," with funding coming only from sponsors, grants, or tax breaks. However, "we have to be careful that we don't become a world of advertising." Like Hawtin, he is concerned that theaters are spending less on marketing, and have "less skin in the game."

Ferguson feels that the giant-screen busi-

ness will only succeed "if the consumer thinks that if they miss this [film] on your screens their life is *impoverished*. We have to think, as with an exhibit or Broadway show, that we have something absolutely unique to offer. This is not just a movie."

In the Q&A period **Phil Groves**, formerly SVP with Imax Corporation, now producing *Asteroid Adventure* for Imax, said that the reason theaters are showing Hollywood films is "to pull in box office. They're trying to survive as a business." He argued that making films that appeal to "a broader and bigger audience is a way of floating all boats." **Taran Davies** of Cosmic Picture responded, "Phil, I'm not sure I agree with that. I wonder about the mission involved here." He pointed out that although some theaters are concerned about the dilution of the IMAX brand by multiplex theaters, "what you have, they don't have. What you have is completely unique." Commercial theaters try to create events, and "that's what you do. And we help you to do that. We create events and experiences."

Awards presentation

The GSCA presented its 2019 Achievement Awards and Imax Corporation presented its Maximum Image Awards in a ceremony on the second night of the conference. Imax presented the Best Booth Award to conference host, the IMAX Victoria, and to the **BFI IMAX Theater** in London, UK. The IMAX Hall of Fame award, presented to a GS film that is at least ten years old, as voted on by the IMAX theater network, was also a tie: *Hail Columbia!* (1982), produced by Imax Corporation; and *Africa: The Serengeti* (1994), produced by Graphic Films Corporation. Imax's Chief Quality Officer's Award of Distinction was presented to **Todd Douglas Miller**, producer, director, and editor of *Apollo 11: First Steps Edition* (2019).

The GSCA presented its Big Shoe Award, selected by GSCA staff to recognize exemplary volunteers to the association, to **Mike Lutz** of **Evans & Sutherland**. The Big Idea Award went to **SK Films** for the creation of 3D printer templates of volcanoes to promote *Volcanoes: The Fires of Creation*. The award for Best Edu-

cation Program was given to **Carnegie Science Center** in Pittsburgh, PA, for its Summer of Space Program that featured *Apollo 11*.

Best Film Launch by a Theater was a tie: **Omniversum** in the Hague, Netherlands, for Imax's *Pandas* (2018); and **Telus World of Science, Edmonton** for its launch of *Superpower Dogs* from Cosmic Picture. Cosmic and Imax Corp. won the prize for Best Marketing Campaign by a Distributor for their joint efforts on *Superpower Dogs*.

Winners of the film awards:

Best Film, Feature Length: *Free Solo*

Best Film for Lifelong Learning: *Apollo 11: First Steps Edition*

Best Visual Effects: *Superpower Dogs*

Best Sound Design: **Brian Eimer**, *Apollo 11: First Steps Edition*

Best Original Score: *Superpower Dogs*

Best Cinematography: **Ian McAllister** and **Jeff Turner**, *Great Bear Rainforest*

Best Film, Short Subject: *Superpower Dogs*

The following people helped make the 2019 conference and trade show a success.

GSCA staff: **Tammy Seldon**, **Kelly Germain**, **Eileen Pheiffer**.

Volunteers: **Jenn Bentz Borcharding**, **John Lewis**, **Araceli Ripper**, **David Ripper**, **Kat Wild**.

IMAX Victoria: **Paul Wild**, **Jason St. Louis**, **Marie Zirk**, **Julia Brown**, **Lea Silver**, **Maxine Becker**, **Zach Meier**.

Royal BC Museum: **Jack Lohman**, **Gary Lacey**, **Mischelle vanThiel**.

Science World BC: **Andrea Durham**, **Ingrid Lae**, **Andreas Dracopol**, **Thierry Latremouille**, **Julio Guzman**, **Michael Fong**, **Tannis Yakabuski**.

Imax Corporation: **David Keighley**, **Patricia Keighley**, **John Engracia**, **Dave Threndyle**, **Ed Whelan**, **Sarah Moshe**, **Alex Portin**, **Chris Thomas**, **Erick Barrientos**, **Jeff Dunant**, **Carlos Zambrano**, **Lynette Hartouni**, **Bryan Barcinas**, **Tigran Kazaryan**, **Tony McQueen**, **Chris Quengua**, **Aaron Cheslak**, **Yeann Tai**, **Adrian Govind**, **Gerald Sarinas**, **Manuel lleto**, **Wilver Delacruz**, **Jason Flowers**.

Our exclusive coverage of the conference will conclude in the December issue of *LF Examiner*.

Giant Screens and High Frame Rates

(from *HFR* on page 1)

To reduce the amount of flickering, each frame was flashed twice before being advanced.

Virtually all Hollywood movies made since then have been shot at 24 fps, and even newer formats with other frame sizes, such as 5-perf 70mm and IMAX 15/70, adopted the 24 fps rate for the sake of backward compatibility.

The shortcomings of 24 fps have long been known, the chief ones being the strobing and juddering visible with rapid motion of the camera or objects in the frame. In such cases, the distance the object must move across the screen is so large that the illusion of continuous motion can be broken, and the double-flashing of the frame creates a jerkiness that can be very distracting. For obvious reasons, the problem is magnified in giant-screen theaters.

Over the years, cinematographers have developed techniques to minimize these effects, but the real solution — increasing the frame rate — was impractical because of the vast inventory of projectors and other equipment that would have to be modified or replaced. A few pioneers made the effort, most notably **Douglas Trumbull**, with the Showscan system he developed in the early 1980s: 5/70 film at 60 fps. But the usual chicken-and-egg problem prevented its widespread adoption. You can't make films unless you have theaters to show them in, and you can't build theaters without films to show.

So when digital cinema came along in the first decade of the 21st century, its standard rate was 24 fps, even though digital systems do not have the mechanical constraints of film transport, or the financial constraints of film consumption.

frames are displayed each second. He shot a short feature, *UFOTOG*, to demonstrate the process, and showed it at the **Giant Screen Cinema Association** conference in Toronto in 2014.

Lee's *Billy Lynn* was the next Hollywood film in HFR, but the HFR made almost no impression on the public, since it was only shown at 120 fps in five theaters globally. Unlike the *Hobbit* films, *Billy Lynn* was a commercial flop, grossing about \$31 million worldwide, against a budget of \$40 million.

Gemini Man

As one of the strongest proponents of HFR, Lee was undeterred, and shot *Gemini Man* in the same format, the difference being that by 2019 thousands of theaters were capa-

ble of 60 or 120 fps. However, when it opened in October, only 30 screens in China were able to show it in full 4K 3D at 120 fps. That's because the only DCI-compliant projection system capable of what Lee calls "the whole shebang" is the newly released Cinity Cinema System, which was developed by **Christie** in partnership with China's **Huaxia Film Distribution Co.** Using dual laser projectors, it projects a 3D image with a light level of 28 foot-Lamberts (after the 3D glasses), twice as bright as the standard for conventional 2D projection, and significantly brighter than IMAX 2D's 22 fL. Cinity's contrast ratio is 5,500:1, more than twice that of conventional projectors, but significantly lower than Dolby Cinema's stated 1,000,000:1.

(see *HFR* on page 10)



Will Smith plays a 50-year-old hitman and his 20-year-old clone in Ang Lee's *Gemini Man*.

The digital era

Virtually all digital cameras and projectors can run faster than 24 fps, although not at all rates or configurations. The existence of a critical mass of HFR-capable digital projectors, and the tremendous success of his *The Lord of the Rings* trilogy, led director **Peter Jackson** to shoot the *Hobbit* trilogy (2012–2014) at 48 fps. It was shown at that rate in several hundred North American theaters, and although the films were commercially successful, the HFR was widely criticized (by critics more than the public) as having a "video" or "soap opera" look.

In the meantime, Trumbull had been working on a digital version of Showscan that he dubbed Magi: it captures and displays 4K 3D, each eye at 60 fps, but alternating left/right, so that 120 unique

(from *HFR* on page 9)

In North America, 14 **AMC Dolby Cinema** venues showed *Gemini Man* at 2K at 120 fps, using Dolby 3D, a dual-laser-projector system that provides light levels of 14 fL after the glasses, and shows 120 frames to each eye simultaneously.

Another 2,500 screens ran it at 2K using RealD 3D, which shows 120 unique frames, 60 per eye alternating. However, the average light level for RealD is much lower, around 3–4 fL.

A number of IMAX digital screens projected it in 3D, at 60 fps per eye simultaneously. The stated light level for IMAX 3D is 12 fL.

About 1,200 North American theaters showed it in 2D at 24 fps. There were no 2D HFR screenings, because Lee insists that 3D is an essential component of the experience.

One of the roadblocks to a wider 120 fps release was 3D. Dolby Cinema has been installed in 127 **AMC** multiplexes in the U.S., 46 theaters in China, 34 in Europe, and five elsewhere. However, since its introduction in 2015 it has been positioned primarily as a 2D format, so most Dolby Cinema locations haven't been supplied with 3D glasses or the cleaning machines for them. The 14 U.S. theaters that played *Gemini Man* are the only ones to have been equipped for 3D to date.

Reaction

Entirely apart from its use of HFR, *Gemini Man* was roundly panned by critics, earning a dismal 25% rating at Rotten Tomatoes. Rex Reed wrote, "the plot makes no sense, the dreary script is dead on arrival." Others called it "a bargain Bond flick," "a silly, soggy, not-unwatchable misfire," "excruciatingly dumb nonsense," "cliché-ridden," and "dreadful."

Gemini Man was somewhat more popular with audiences (83% at Rotten Tomatoes), although its domestic opening was a weak \$20.5 million. Its international performance, particularly in China, where Lee is revered, has been somewhat stronger, but probably won't lift it out of the "financial flop" range. A month after its U.S. open (and two weeks after it opened

in China) it had grossed over \$160 million worldwide, against a production budget of \$138 million.

Most critics also disliked the HFR experience, as well as the new digital de-aging process that allowed Smith to play a 20-year-old version of himself. Charlotte O'Sullivan of Britain's *The Standard*, said "the innovative, ultra-high-frame-rate... renders actors, objects, and even the air somehow flimsy and weird and fake." The *Los Angeles Times*' Justin Chang wrote, "The crisp, hyper-real intensity of the images could seem more distracting than immersive, often evoking the dreadful 'motion smoothing' effect that still plagues too many television sets."

The artistic aspect of HFR

Although theories abound, it is not entirely clear why HFR should be problematic for dramatic content, or why so many viewers – especially film critics and buffs – feel that the enhanced realism of the image detracts (or at least distracts) from involvement in the story. One possibility is that over the past century people have simply become accustomed to the artifacts inherent in the 24 fps frame rate, and anything different from that is perceived as "not real."

Another theory suggests that, instead of bringing viewers into the story, the added realism of the image brings them onto the set, where they see actors acting, not characters in a fictional world.

Trumbull's theory is that over the past 125 years the shutter effect, an unavoidable artifact of 24 fps film transport that blanks the screen between each frame, has become indelibly associated with cinema and the suspension of disbelief. When digital cinema projectors, which display continuous images with no blanking, run material at higher frame rates, approaching the 60 fps of U.S. television, we unconsciously perceive it as "video-like." His patented solution in the Magi system is to shoot 60 fps 3D with the cameras synched out of phase, then use a single projector to project the footage. The result is that each eye is blacked out while the other is displayed. He calls this "cadence," and believes it eliminates the "soap opera" effect

perceived in other systems, like the ones used by Lee and Jackson.

Both Lee and Trumbull believe that HFR is the future of cinema, and that, in time, people will get used to this new experience. Filmmakers and actors will develop new techniques to make HFR movies believable, as they have in previous transitions to sound, color, and 3D.

Larry Paul, executive director for technology and custom solutions at **Christie**, has worked with Lee over the past few years. He tells *LF Examiner*, "When the broadcast industry went from standard def to HDTV, there was an initial backlash, where people did not like the look of it. They thought it was too stark. Now, not only are [TVs] at 4K, we're pushing to 8K. Somehow we got past it. I don't see anyone today saying, 'Give me NTSC. I want 640x480.' No one's pushing to go to lowers in the TV world, but the film industry is fairly entrenched in their beliefs. But there are some filmmakers who are forward-thinking and visionary, who want to take us to the next level. And that's what Ang has been doing."

On the other hand, **James Cameron**, who had reportedly been shooting the *Avatar* sequels in HFR, seems to have cooled on the technique, and has recently said that he will only use it in select sequences to ease judder problems with 3D.

My take on the film and HFR

I saw *Gemini Man* in a Dolby Cinema location in 2K 3D at 120 fps. Setting aside the weaknesses of the film's story and plot, I found the visual experience simply amazing. Like the first time you saw HDTV or Showscan or IMAX, the HFR in *Gemini Man* made you feel you were looking through a window at reality. The clarity, detail, and depth of the image were simply incredible. In the film's early scenes I had the feeling that I was watching actors rather than characters, but that soon faded, largely on the strength of Smith's acting ability. (This fact does not bode well for less-skilled actors if HFR becomes more common!) My wife, not a cinema techie or fan of action films, was similarly impressed with the visual experience. (My sense of propriety and journalistic impartiality pre-

vents me from reporting her first blunt comment when the lights came up, but buy me a drink at the next conference and I'll share it with you.)

I have been a fan of HFR ever since I saw the first Showscan film, Trumbull's *A New Magic*, in the spring 1984, a few months before I started working in the Langley IMAX Theater at the Smithsonian's National Air and Space Museum in Washington, DC. Nearly 30 years later, I was eager to see *The Hobbit*, but like many others, was disappointed with certain aspects of it. My sense at the time was that the realism of HFR was not well suited to presenting the fantasy world of Middle Earth. It was clear, even then, that new techniques would be needed for this new format, but I looked forward to an HFR film set in the real world.

I never had a chance to see *Billy Lynn*, so I had to wait another nine years for *Gemini Man*, and my conclusion is that HFR can work in Hollywood films, if done well. It isn't needed for all, or even most, movies, but it is a compelling and powerful experience that, in the right hands, and with the right story, could raise cinema to a new level. As with 3D, it is a new tool for storytelling that can be used well or badly.

Sadly, *Gemini Man* is not the *Avatar* of HFR. Digital 3D was launched in 2005, but it took the enormous success of Cameron's 2009 sci-fi film to spark widespread acceptance of 3D as more than just a gimmick, both with the public and, more importantly, in the board rooms of the Hollywood studios. If *Gemini Man* had been even half as successful as *Avatar*, Hollywood might be more enthusiastic about HFR. But HFR starts with several big strikes against it in Hollywood:

1. **It is hard to explain.** With 3D, there was little difficulty in telling the public

what they were getting. HFR is technical, somewhat complicated, and its benefits aren't as immediately obvious to the general public as 3D. It can't be demonstrated in TV or online videos, and because it isn't the sole property of a single company, there is no HFR brand and no well-funded marketing effort to explain and promote it.

2. **It is more expensive.** Although not as expensive as shooting film at five times the standard rate, HFR does require more resources in production, including increased attention to small visual details in sets and costumes that other formats wouldn't resolve. Post-production expenses are also higher.



Doug Trumbull shooting for UFOTOG in the Magi format.

Add shooting native 3D, which is very rare in Hollywood now, and the costs go up even more.

3. **Many people dislike it.** Most of the reviewers I sampled disliked the HFR experience. Kevin Maher, in *The Times* (U.K.) said that 120 fps is "a high-definition format that will, I hope, never see the working end of a cinema projector again." Almost no one was entirely positive about it, although a few felt that it might have some potential in specific circumstances. It's unclear whether the public is as down on HFR as the critics, mainly because relatively few have actually

experienced it. But the critics' opinions could sway audiences and studio execs.

So the future of HFR in conventional features is cloudy at best.

Can HFR save giant screens?

All of this might lead many to feel that the GS world should reject HFR as well. However, I think that would be a big mistake, because of the critical differences between feature films and GS films. Furthermore, the fact that the studios are not rushing to use HFR could work to our advantage.

Although I believe that HFR will eventually gain acceptance in Hollywood, let's

say, for the sake of argument, that the critics are right and that HFR is never used for dramatic feature films. Obviously, this has no effect on the GS world, since (for the most part) we aren't making dramas.

We present *reality*, and the heightened reality of the HFR image is eminently suited to our subjects. We don't have to worry whether our star chimpanzee, or elephant, or dung beetle, is a good enough actor. We don't have to worry that our

jungle location doesn't look like a real jungle.

The greatest appeal of the GS experience has always been the magical "you are there" feeling. The sense that you are no longer in a theater, but have been transported. HFR is the next step in presenting that reality, because it removes one of the last remaining technical artifacts, the strobing and juddering inherent in 24 fps projection. It is bad enough in TV or conventional movies, but it is horrible on giant screens, particularly on domes, and greatly limits the kinds of shots filmmakers can put in their films.

(see *HFR* on page 14)



* New listing.

All films are 3D unless noted; underlined titles are 2D.

Updated information is printed in bold.

Unless noted, all films run about 40 minutes.

Train Time

Stephen Low Company; distributor: Stephen Low Company; director, script: Stephen Low; producers: Pietro Serapiglia, Stephen Low; executive producer: Paul Globus. 2D. Release: January 2020.

- Principal photography is complete, post production is under way.

Asteroid Impact

Imax Corporation, Huahuang Pictures; distributor: Imax Corporation; director: W.D. Hogan; producers: Jini Durr, Phil Groves; DP: Sean MacLeod Phillips; script: Phil Groves; executive producers: Anna Chi, Phil Groves. Cast: Len J. Phillips, Steve Tsang, Bernadette Janssen. Release: Feb 14, 2020.

- Principal photography is complete, post production is under way.

Into America's Wild

MacGillivray Freeman Films; distributor: MacGillivray Freeman Films; director: Greg MacGillivray; producer: Shaun MacGillivray. Release: Feb. 14, 2020.

- October: Additional filming in Utah and the Sierra Nevada.
- Post production is under way.

Mars 1001

Mirage 3D; distributor: K2 Studios; director, producer, writer: Robin Sip. Release: February 2020.

Sea Lions: Life by a Whisker

Definition Films; distributor: K2 Studios; producer: David Gross; script: Amelia McCarten; executive producer: Mark Kresser. Release: February 2020.

- Filmed recently in California and South Australia.
- Principal photography is complete, post production is under way.

Ancient Caves

Oceanic Research Group; distributor: MacGillivray Freeman Film Distribution; director, DP: Jonathan Bird; producers: Jonathan Bird, Art Cohen; script: Jonathan Bird, Art Cohen; score: Bruce Zimmer-

man; executive producer: Shaun MacGillivray. Cast: Dr. Gina Moseley, Dr. Larry Edwards, Brian Kakuk, Todd Kelly, Dr. Keith Tinker. 2D. Release: March 13, 2020.

- All photography is complete, post production is under way.
- November: Recording score with City of Prague Philharmonic Orchestra.
- World premiere will be held in St. Paul, MN, in March 2020.

Angkor: Lost Empire of Cambodia

Definition Films, Helio Projects Asia; distributor: K2 Studios; director: Murray Pope; producers: Christopher Zaryc, David Gross, Murray Pope; DP: Earle Dresner; script: Murray Pope, Paul Phelan; executive producers: Ed Capelle, Mark Kresser, Nick Robinson, Kulikar Sotho, John Weiley. Release: Spring 2020.

- Principal photography is complete, post production is under way.

Snow

Ouragan Films, nWave Studios; distributor: nWave Pictures; directors: Cyril Barbançon, Jacqueline Farmer; producer: Jacqueline Farmer; DPs: Cyril Barbançon, Jacqueline Farmer; script: Philippe Chappuis; score: Franck Marchal; executive producer: Eric Dillens. Release: Spring 2020. Filming will resume near the end of the year.

Ocean Currents (wt)

Wild Pacific Media, Definition Films; distributor: K2 Studios; director: Nick Robinson; producers: Nick Robinson, Electra Manikakis, Peta Ayers; DP: Jon Shaw. Release: May 2020.

Dino Dana: The Movie

Sinking Ship Entertainment; distributor: Sinking Ship Entertainment; director: J.J. Johnson; producer: Eric Beldowski; DP: George Lajtai; script: J.J. Johnson, Christin Simms; score: Michael-Paul Ella; executive producers: J.J. Johnson, Blair Powers, Christin Simms. Cast: Michaela Luci, Saara Chaudry, Nicola Correia-Damude, Amish Patel. 2D. Release: June 2020.

- A shorter version is being prepared.

Tenet

Syncopy; distributor: Warner Bros.; director, writer: Christopher Nolan; producers: Christopher Nolan, Emma Thomas; DP: Hoyte Van Hoytema; score: Ludwig Göransson; executive producer: Thomas Hayslip. Cast: John David Washington, Michael Caine, Kenneth Branagh, Robert Pattinson. 2D. Release: July 17, 2020.

- Principal photography began in Tallinn, Estonia, in June and will continue in six other countries.

Cool Cities (wt)

Definition Films, Wild Pacific Media; distributor: K2 Communications; director: Nick Robinson; producer: David Gross; executive producers: Robert Kresser, Mark Kresser. Cast: Tim Jarvis. Release: Fall 2020.

Nov '19	Jan '20							Jul '20	
BFTB OOB	TrainT	AstImp IAW Mars SeaLion	AncCav		Angkor Snow	OceCurr	DDana	Tenet	C E

Einstein's Incredible Universe (wt)

Cosmic Picture; distributor: tba; director: Daniel Ferguson; producers: Taran Davies, George Duffield, Daniel Ferguson; script: Daniel Ferguson, Mose Richards; DP: Reed Smoot. Release: fall 2020.

Wings 3D

Dorsey Pictures, Archipelago Films; distributor: SK Films. Release: 2021

Dinosaurs of Antarctica

Giant Screen Films; distributor: Giant Screen Films; director: David Clark; producers: Don Kempf, Deborah Raksany, Andy Wood; DP: Reed Smoot; script: Deborah Raksany, Andy Wood. Release: 2020.

Elephant

Wild Expectations, Ltd.; distributor: tba. Release: 2020.

Feathered Dinosaurs (wt)

Saint Thomas Productions; distributor: nWave Pictures. Narrator: James Faulkner. Release: 2020.

Journey to the Great Mayan Reef

Milbrand Cinema; distributor: tba; director, producer, DP: Lance Milbrand; editor: Dave Choice; score: Icarus Music. Cast: Kathleen Dudzinski, Eldon Bolton. Release: 2020.

- November: Will wrap principal photography.

Secrets of the Sands

Atlantic Productions; distributor: Serengeti Entertainment. Release: 2020.

Wingsuit Flyers

Grand Schema; distributor: K2 Communications; director: Christopher J. Scott; producers: John Molli, Christopher J. Scott, Aschi Michel, Tom Fore; DP: Robert Hollingworth; script: Christopher J. Scott; executive producers: Rob Sharps, Doug Greenstein, W. Kyle Gore, Daniel Verbic, Tom McCollum. Release: 2020.

Shark Heroes

Distributor: K2 Studios; executive producer: Mark Kresser. Release: Early 2021.

Ireland

MacGillivray Freeman Films; distributor: MacGillivray Freeman Films; director: Greg MacGillivray; producer: Shaun MacGillivray. Release: March 17, 2021.

- Principal photography is complete, post production is under way.

Blue Whales

Oceanic Films; distributor: tba; director: Hugh Pearson; producers: Hugh Pearson, Myles Connolly; DP: Hector Skevington-Postles; writers: Hugh Pearson, Myles Connolly. Cast: Diane Gendron. Release: March 2021.

Secrets of the Sea

Howard Hall Productions, Oceanic Research

ool/Cit
UDOA
Eleph
FeaDin
JTTGMR
SSands
WingsuitSharkH
Ireland
BluWha

SSea

AntITU FireF

Group; distributor: tba; directors: Howard Hall, Jonathan Bird; producers: Michele Hall, Christine Bird; DPs: Howard Hall, Jonathan Bird; script: Howard Hall; score: Bruce Zimmerman, Alan Williams; executive producers: Michele Hall, Christine Bird. Release: Spring 2021.

– Shooting planned for Indonesia and the Bahamas in spring 2020.

Antarctica: Into the Unknown

BBC Earth; distributor: SK Films; director: Fredi Devas; producers: Jonny Keeling, Myles Connolly;

executive producer: Jonathan Williams. Release: 2021.

Fire Fighters *

An inside look at the dedicated fire fighters who battle wildfires in California.

Sean Casey Productions; distributor: tba; director, DP: Sean Casey. 2D. Release: 2021.

– Shooting in Southern California began this fall and will continue through January 2020.
– Shooting will resume next summer.

DMR FILMS:

Title	Dist	Release
Jumanji: The Next Level	SONY	12/13/19
Star Wars: Rise of Skywalker	WDPD	12/20/19
Birds of Prey	WB	2/2/20
The King's Man	FOX	2/4/20
Mulan	WDPD	3/27/20
No Time to Die	MGM	4/04/20
Wonder Woman 1984	WB	6/5/20
Avatar 2	FOX	12/17/21



Director Sean Casey (right) using a RED camera to film the Easy Fire in Ventura County, CA, northwest of Los Angeles, in October, for Fire Fighters.

(from *HFR* on page 11)

Furthermore, GS filmmakers have decades of experience in presenting the real world on screen, and have developed techniques to avoid the situations that break that reality, techniques that feature film directors would do well to learn before shooting in HFR. I observed a few of these missteps in *Gemini Man*.

GS filmmakers have long understood that most shots in a GS film require great depth of field, so that viewers can look all around the huge frame. Throwing a portion of the image out of focus, which conventional filmmakers often do to direct the viewer's attention, breaks the illusion that one is simply looking through a window at the real world. Although there seemed to be less of this in *Gemini Man* than most features, it was noticeable in several shots.

Leaders in our business have been saying for a long time that, to survive, the GS world needs to differentiate itself from all the other entertainment options people have these days, from mobile devices to home theaters to premium large-format screens in multiplexes. As GS theaters have converted to digital, in some cases shrinking their image and losing the distinctive 4:3 aspect ratio in the process, and as Premium Large Format theaters have gotten bigger and brighter, the difference between the experiences has narrowed. In many cases, the only difference left is content. And to the degree that many institutional theaters now show Hollywood films, even that distinction is falling by the wayside.

HFR can begin to widen the gap again, and offer something that other venues can't, not even home theaters, which are already much brighter and have 4K resolution, the same as most digital projectors. (And 82-inch 8K TVs are already available for as little as \$5,000.)

The change has already begun in a related segment of our world: fulldome theaters and shows, most of which were initially only 30 fps, have been increasingly upgrading to 60 fps. The higher rate has been fully accepted and is universally seen by fulldome operators and audiences as a great improvement to the experience.

The good news is that virtually all digital projectors installed in GS theaters are already capable of frame rates higher than 24 fps, even if not all can run 3D at 120 fps. All but the oldest DLP projectors can show 2D at 120 fps or 3D at 60 fps, including most 2K xenon IMAX systems, projectors from Christie and Barco (which make up a large portion of non-IMAX GS systems), and fulldome systems from suppliers like **Evans & Sutherland**, **GOTO**, **Sky-Skan**, and **Zeiss**. With upgraded integrated media blocks and servers, some could run even higher.

Ironically, one of the newest projectors, the IMAX GT laser, is the only system in general use in GS theaters that is not capable of 60 fps. Used as a dual system in 18 institutional flat-screen theaters and as a single system in four dome theaters, it is only capable of 48 fps by dropping from its normal 4K resolution to 2K. Reportedly, Imax Corp. has no plans to update the system. These theaters represent only 15% of active institutional screens worldwide, but unfortunately they include some of the most successful and highest-profile venues, including the Smithsonian (two), the **California Science Center**, and the **Pacific Science Center**, among others.

All that is needed for a significant number of GS theaters to start showing HFR content is for filmmakers to start providing it. To be sure, this is far more easily said than done. As mentioned above, there are additional costs to shooting and post-producing HFR footage. At a time when production budgets are shrinking, finding the extra resources will be a challenge. But as with all things digital, advances will continue to be made, and costs will continue to fall, and if HFR can help revitalize the GS business model, the benefits to the whole industry could be substantial.

Producer **Phil Streather** of **Principal Large Format** is skeptical about the viability of shooting HFR for GS documentaries, at least in the short term. He tells *LFX* that after "detailed conversations" with Lee's stereographer and technical supervisor, "I simply can't see bolting the tech they used on those films onto a documentary style of filming." He also points

out that the only cameras capable of running at 120 fps are 4K. The 6K and 8K cameras that are widely used for GS shooting now have a maximum rate of 60 fps at their highest resolutions. But shooting 60 fps is problematic if you need to create 24 fps versions for film-based theaters. It is complicated and expensive to convert material that is not captured at an even multiple of 24: 48, 72, 96, or 120.

Perhaps the most important decisions regarding HFR today and in the next few years will be made by the 55 film-only theaters when they to convert to digital. It behooves them to future-proof their theaters by looking carefully at the advanced features and upgrade options of the projection systems they are considering, and not lock themselves into a major capital expenditure that could be out of date within a few years.

The future

The GS industry has been stagnant or in decline for years, a reality the GSCA addressed at its 2019 conference in the "We need to talk..." session. (See *article on page 1*.) The consensus of that discussion was that all stakeholders must come together to search for ways to slow and reverse that trend. There is broad agreement that the primary strength of the GS experience is the unique characteristics that set it apart from all other types of cinema.

HFR has the potential to provide a new and compelling aspect to the GS experience that could further differentiate our theaters, draw in new audiences, and revive the excitement that all GS films used to create. The fact that it has not yet gained acceptance in Hollywood (and may never) could give us a window of opportunity to make HFR another distinctive feature of the GS experience.

It will require bold action on the part of filmmakers to create, and on the part of exhibitors to fund and show, these new experiences. The effort may not succeed, or it may not be enough. But if we simply continue on our current course, the decline will inevitably continue until the GS experience is nothing more than a footnote in the history of cinema.

Premiering in October and November



Back from the Brink

Back from the Brink

Produced by **Sean Casey Productions**, distributed by **Cosmic Picture**. Directed and photographed by **Sean Casey**, produced by **Jen Casey** and **Sean Casey**, written by **Mose Richards**. Release: Oct. 25.

Experience on the giant screen the remarkable true story of three animal species rescued from brink of extinction. Meet the scientists, park rangers, and students working to save endangered animals around the world. Discover how California's enchanting Channel Island fox is rescued

from an invasion of golden eagles, the fastest recovery of a species in the history of animal conservation. Join the former hunters of one of the world's most endangered primates, the golden monkey, who now protect them in the fabled mountains of China's Yunnan Province. Witness the wondrous migration of

the Christmas Island red crab, and marvel at their recovery from a crazy yellow ant infestation in one of the most successful bio-control experiments ever undertaken. Join this remarkable and heartfelt adventure to save endangered species around the world.

Out of Bounds

Produced by **Definition Films** and **Wild Pacific Media** and distributed by **K2 Studios**. Directed by **Caspar Mazzotti**, produced by **Nick Robinson** and **David Gross**, pho-

tographed by **Earle Dresner**, and written by **Caspar Mazzotti**. Executive producers: **Mark Kresser**, **Robert Kresser**, **Jeff Cutler**. Cast: **Torah Bright**, **Jeremy Jones**, **Sammy Carlson**. Release: Nov. 29.

Follow Australian Olympic gold medalist **Torah Bright** as she journeys along the great American Cordillera, the world's longest chain of mountain ranges, extending from Antarctica all the way to Alaska. On the journey, **Torah** will encounter world-class snow athletes, scientists, and environmentalists. Discover the crucial role mountains play in our ecosystem and everyday life, while witnessing the most spectacular snowboard and ski action ever brought to the giant screen!

DMR FILMS

Title	Dist	Release
<i>Joker</i>	WB	10/4/2019
<i>Gemini Man</i>	PPC	10/11/2019
<i>Maleficent: Mistress of Evil</i>		
	WDP	10/18/2019
<i>Jesus is King</i>	IMAX	10/25/2019
<i>Terminator: Dark Fate</i>	PPC	11/1/2019
<i>Doctor Sleep</i>	WB	11/8/2019
<i>Ford V Ferarri</i>	FOX	11/15/2019
<i>Charlie's Angels</i>	SONY	11/15/2019
<i>Frozen 2</i>	WDP	11/22/2019

(from **SHORTS** on page 24)

many different forms of life that inhabit the peninsula," according to its Web site. It remains open year-round.

AIS honors Patricia Keighley

In October, the **Advanced Imaging Society** honored **Imax Corporation's Patricia Keighley** with its **Distinguished Leadership Award**, along with nine other women. The award recognizes "entertainment industry growth catalysts," and was presented in a ceremony held in Los Angeles.

The mission of AIS is to "educate, demonstrate, and recognize emerging technologies to accelerate the success of next-generation consumer experiences." In addition to its annual awards, it produces conferences, educational videos, and screenings, and assists research.

Kanye's IMAX short

In October, about 400 IMAX theaters in North America and the U.K. ran **Jesus is King**, a 30-minute film of a gospel concert by rapper **Kanye West**. Filmed in the Roden Crater, a land art project created by **James Turrell**, the movie was directed by **Nick Knight** and features songs from West's new album of the same name. The film grossed over \$1 million in its one-week run.

D3D Cinéfolio VR system

D3D Cinema has launched **Cinéfolio VR**, a VR system that "harnesses the power of the latest in VR technology to provide clients with an immersive experience that transcends their physical walls," according to a press release. The company says that the system, which uses head-mounted displays, "transport[s] audiences from a regular chair in an ordinary room

to a world-class giant cinema," enabling institutions that cannot afford a GS theater to offer the GS experience in existing spaces.

Grant & Slater's cinema book

Jim Slater, longtime editor of U.K. magazine **Cinema Technology**, and author, projectionist, and film buff **Grant Lobban** have published *All Shapes and Sizes*, subtitled "An illustrated history of film in cinema and television." The 278-page book is adapted from *CT* articles the pair have written over the years, with the addition of many photos and illustrations. Among its major topics are the history of color film processes, film restoration, aspect ratios, and the intersection of film and television.

The book is available in hardcover at Amazon: tinyurl.com/slaterlobban.

Bookings: Oct.-Nov. 2019 by Film

781 bookings of 94 films in 214 theaters

These listings do not include Hollywood films shown in multiplex IMAX theaters. Those films are listed when they are shown in non-multiplex theaters, and conversely, non-Hollywood giant-screen films showing on multiplex IMAX screens are also listed.

Listings shown in **bold face** below are new or updated listings. The rest are unchanged from the previous

month's issue.

The data on the following pages are *not* warranted to be comprehensive or accurate in every detail, despite our best efforts to make them so. They have been compiled from theater surveys, distributors, the Web, and other sources.

We will make every effort to improve the thorough-

ness, and accuracy of these data. If your theater or film is not shown here, please get in touch with us to update our listings.

Where a date is not shown, it means that no date was provided by the source or, in the case of a closing date, that no date has been set, or that the run is indefinite.

The key to film abbreviations is on page 21.

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
A11FSE	Atlanta FMNH	6/1/19	5/30/20	AMJ	London BFI Ode	3/29/19	3/31/20	ConqOTS CRA Cuba	Edmonton TWS	6/30/18	6/30/20
	Austin TSHM	9/1/19	8/30/20		Nonwalk MA	5/17/19	5/16/20		San Diego RHF	7/1/14	6/30/20
	Baton Rouge LASM	7/6/19	7/5/20		Orlando SC	2/24/18	6/30/20		Victoria DCI	8/18/17	5/14/21
	Birmingham AL	5/19/19	5/18/20		Peoria RM	6/20/18	6/30/20		Fort Worth	6/10/17	9/30/20
	Bradford	5/17/19	5/16/20		Pittsburgh CSC	11/17/17	12/31/19		Aguaascalientes	10/25/19	3/25/20
	Branson	6/14/19	6/13/20		Portland OMSI ET	2/16/18	2/16/20		Boston MOS	2/15/19	2/29/20
	Chantilly	5/17/19	5/17/20		Richmond SMV	5/1/18	6/30/20		Charlotte DP	9/1/19	9/1/20
	Chattanooga TA	6/14/19	6/13/20		Sacramento Imx	9/8/17	6/30/20		Chicago MSI	3/1/19	3/31/20
	Chicago MSI	5/24/19	5/23/20		Seattle PSC 2	11/10/17			Denver MNS	10/19/18	10/31/19
	Cincinnati MC	9/28/19	9/27/20		Sioux Falls	12/2/17	5/31/20		Edmonton TWS	2/1/19	2/28/20
	Cleveland	5/18/19	5/17/20		Syracuse MOST	2/16/19	2/15/20		Galveston	3/9/19	3/31/20
	Copenhagen TBP	6/12/19	6/11/20		Tallahassee CLC	4/28/17	6/30/20		Gatineau	2/1/19	2/28/20
	Davenport Put	7/13/19	7/12/20		Toronto OSC	10/6/17	6/30/20		Hutchinson	2/15/19	2/28/20
	Dayton	5/25/19	5/24/20		Vancouver TWS	12/22/17	6/30/20		Lucerne STM	10/25/19	10/31/20
	Dearborn THF	6/17/19	6/16/20		Victoria DCI	4/14/17	6/30/20		Memphis Pink	9/19/19	9/17/21
	Denver MNS	5/17/19	5/16/20		Aguaascalientes	4/5/19	12/31/19		Pittsburgh CSC	11/1/19	10/31/20
	Fort Worth	5/17/19	5/16/20		Austin Reg	3/1/19	6/1/20		Saint Louis SC	12/22/18	12/31/19
	Garden City	5/21/19	5/20/20		Baton Rouge LASM	5/25/19	5/24/20		Saint Paul SMM	3/1/19	3/1/20
	Hague	5/21/19	11/21/19		Cleveland	3/23/18	3/31/20		Seattle PSC 2	6/14/19	6/30/20
	Hampton VASC	6/15/19	6/14/20		Dearborn THF	2/16/18	2/18/20		Singapore DC	9/17/19	3/17/20
	Huntsville USSRC	6/1/19	5/30/20		Guayaquil	4/16/19	4/15/20		Tallahassee CLC	1/18/19	6/30/20
	Hutchinson	5/17/19	5/16/20		Hartberg	4/6/19	4/15/20		Tijuana	10/15/18	10/14/19
	Indianapolis Imx	7/12/19	7/11/20		Kapurthala	6/15/18	6/14/20		Victoria DCI	3/29/19	3/31/20
	Kagoshima MSC	7/1/19	12/31/19		Mexicali	9/22/18	10/1/19		Columbus GA NIM	1/31/18	12/1/19
	KSC 2	5/17/19	12/31/19		Mexico City PAP	3/15/18	12/31/19		Dayton	5/26/17	12/31/19
	London SM	5/17/19	5/16/20		Monterrey Pap	3/15/18	4/15/20		Edmonton TWS	3/1/18	12/31/19
	Los Angeles CSC	7/15/19	10/3/19		Moscow Kin	4/15/18	4/16/20		Gatineau	9/1/15	12/31/20
	Lucerne STM	5/24/19	12/31/19		Nassau Fus	10/30/19	10/30/21		Hampton VASC	10/17/18	10/17/19
	Melbourne MV	10/1/19	6/30/20		Pensacola NAM	2/26/19	2/27/20		Hutchinson	12/31/17	1/31/20
	Memphis Pink	5/25/19	5/24/21		Peoria RM	2/16/18	2/17/20		Peoria RM	4/2/15	2/28/20
	Nonwalk MA	5/17/19	5/16/20		Pittsburgh CSC	1/25/19	1/24/20		Pittsburgh CSC	2/19/19	2/18/20
	Orlando SC	7/1/19	6/30/20		San Jose Tech	2/17/18	11/1/19		Raleigh	5/23/14	2/28/20
Osaka Sci	7/20/19	7/21/20	Shanghai 3D STM	7/24/19	7/23/20	San Jose Tech	5/15/19	6/30/20			
Pensacola NAM	5/17/19	5/16/20	Sioux Falls	2/1/19	5/30/20	Vancouver TWS	11/7/15	11/13/19			
Peoria RM	5/25/19	5/24/20	Tallahassee CLC	2/16/18	2/28/20	Aguaascalientes	4/13/19	4/30/20			
Philadelphia FI	5/17/19	5/17/20	Lehi	9/6/19	9/5/20	Portland OMSI ET	1/26/18	1/31/20			
Phoenix ASC	5/17/19	5/16/20	London BFI Ode	9/1/18	2/6/20	Gatineau	7/9/18	3/20/20			
Pittsburgh CSC	5/19/19	5/18/20	Melbourne MV	7/11/16		Kolkata SC	3/1/19	12/1/19			
Portland OMSI ET	5/17/19	5/16/20	Victoria DCI	4/16/18	4/15/21	Mumbai NSC	3/1/19	12/1/19			
Raleigh	7/5/19	7/4/20	Stockholm	10/1/17	10/1/19	Speyer Dome	1/1/15	12/30/19			
Sacramento Imx	7/12/19	7/1/20	Galveston	11/17/18	11/30/19	Baltimore MSC	2/17/17	3/1/20			
Saint Paul SMM	5/17/19	5/11/20	Portland OMSI ET	1/26/18	1/31/20	Baton Rouge LASM	6/30/17	12/31/19			
Salt Lake City Clark	6/22/19	6/21/20	Saint Felicien	4/1/18	11/30/19	Bradford	1/1/18	12/31/19			
San Jose Tech	5/17/19	5/16/20	Gatineau	4/24/18	3/30/20	Chantilly	2/17/17	2/16/20			
Seattle PSC 2	5/31/19	7/18/20	Atlanta FMNH	1/11/18	1/10/20	Charlotte DP	8/26/17	12/31/19			
Shreveport	7/4/19	7/3/20	Garden City	5/19/17	6/18/20	Cleveland	3/17/17	3/31/20			
Sinsheim	5/17/19	5/16/20	Kolkata SC	1/1/19	12/31/20	Davenport Put	2/24/17	3/31/20			
Speyer Dome	5/17/19	5/16/20	Baltimore MSC	3/1/19	6/30/20	Dearborn THF	2/17/17	7/1/20			
Tallahassee CLC	7/12/19	7/11/20	Beijing 3D CSTM	11/1/19	8/5/20	Edmonton TWS	3/25/17	2/18/20			
Toronto OSC	5/17/19	11/16/20	Charlotte DP	11/23/18	11/23/19	Fort Lauderdale	2/17/17	6/6/20			
Toulouse CDE	6/1/19	12/31/19	Chattanooga TA	3/16/18	12/31/19	Fort Worth	2/17/17	6/30/20			
Valencia Spn	7/1/19	6/30/20	Dearborn THF	8/1/18	2/29/20	Garden City	12/1/17	12/31/19			
Vancouver TWS	11/23/19	11/22/20	Edmonton TWS	11/8/19	11/7/20	Grand Rapids Cel	7/15/17	7/31/20			
Victoria DCI	9/20/19	9/19/20	Fort Lauderdale	6/1/18	4/24/20	Hampton VASC	2/17/17	6/14/20			
Washington NASM	5/17/19	5/17/20	Garza Garcia	6/27/19	10/31/19	Harrisburg	2/18/17	3/11/20			
Yellowstone	5/17/19	5/16/20	Gatineau	6/1/18	3/31/20	Hastings	10/19/17	10/1/19			
ACGOTS	Corpus Christi Lex	6/17/16		BackWild	Guangzhou GSC	5/1/19	5/1/20	DreamBig	Houston MNS	2/17/17	12/31/19
	Dayton	6/17/16	12/31/19		Guayaquil	4/3/19	3/31/20		Indianapolis Imx	1/17/19	1/16/20
	Hampton VASC	11/10/17	11/9/19		Hague	2/12/19	2/11/20		Jersey City	2/17/17	12/31/19
	Hutchinson	5/29/17	11/30/19		Kuwait SCK	8/10/19	2/10/20		Kuwait SCK	6/25/17	8/31/20
	Pensacola NAM	5/26/17	6/30/20		Lehi	5/24/18	5/24/20		Lansing Cel	6/30/17	7/31/20
	Toronto OP	6/1/18	6/1/20		Los Angeles CSC	9/28/19	4/1/20		Louisville KSC	2/17/17	2/28/20
AfricAdv	Victoria DCI	5/3/19	5/31/20	Louisville KSC	3/23/18	6/30/20	Milwaukee	7/10/17	6/30/21		
	Washington NASM	5/26/17	5/25/20	Nonwalk MA	3/24/18	6/30/20	Monterrey Pap	2/2/18	4/15/20		
	Katowice CC		9/30/20	Omaha Zoo	11/1/18	6/30/20	Moscow Kin	9/10/17	6/2/20		
	Krakow CC		9/30/20	Orlando SC	11/1/18	6/30/20	Nassau Fus	10/30/19	10/30/21		
	Lodz CC		9/30/20	Pittsburgh CSC	8/31/18	12/31/19	Orlando SC	2/17/17	11/9/19		
	Poznan CC		9/30/20	Portland OMSI ET	9/7/18	6/30/20	Peoria RM	2/18/17	6/1/20		
AGWN	Warsaw CC		9/30/20	BFTB	Raleigh	6/4/18	6/30/20	DSC Everest	Philadelphia FI	3/1/18	12/31/19
	Wroclaw CC		9/30/20		Saint Augustine	8/17/19	8/16/20		Pittsburgh CSC	11/17/17	12/31/19
	Boston NEA	7/1/19	2/15/20		Shanghai 3D STM	11/1/19	11/1/20		Port of Spain	5/3/19	5/2/20
	Dongguan STM	1/1/19	12/31/19		Sioux Falls	2/1/19	5/31/20		Portage Cel	6/30/17	7/31/20
	Galveston	5/31/19	11/30/19		Sudbury	9/4/18	6/30/20		Regina	2/17/17	12/31/19
	Harbin STM	12/1/18	12/1/19		Taichung NMNS	7/1/19	6/30/20		Richmond SMV	2/18/17	12/31/19
AirRacer AIWC AmazAdve	Orlando SC	9/1/19	3/31/20	Bugs	Tallahassee CLC	10/18/18	6/30/20	ExpChesa	Saint Augustine	2/17/17	6/30/20
	Portland OMSI ET	3/1/19	2/29/20		Valencia Spn	4/1/19	6/30/20		San Jose Tech	2/17/17	11/1/19
	Seattle PSC 2	10/5/18	10/5/19		Victoria DCI	1/18/19	6/30/20		Sioux Falls	6/2/17	5/30/20
	Shanghai 3D STM	1/1/19	1/1/20		Virginia Beach AMSC	6/30/18	12/31/19		Thessaloniki SCTM	10/28/17	10/1/19
	Tijuana	4/12/19	4/11/20		Davenport Put	11/1/19	10/31/20		Vancouver TWS	3/4/17	6/30/20
	Hutchinson	1/19/18	1/31/20		Fort Lauderdale	10/25/19	10/24/20		Victoria DCI	3/17/17	12/31/19
	Sacramento Imx	5/1/15	6/10/20		Hastings	10/25/19	10/24/20		Washington NASM	2/17/17	2/16/20
	Cleveland	1/9/18	6/30/20		Houston MNS	10/25/19	10/24/20		Portland OMSI ET	6/13/19	6/14/21
	Edmonton TWS	1/19/18	6/30/20		Orlando SC	11/8/19	11/7/20		Gatineau	7/30/18	3/30/20
	Glasgow	4/12/19	4/14/20		Salt Lake City Clark	11/6/19	11/15/20		Hague	9/1/19	
Houston MNS	4/21/17	12/31/19	San Jose Tech	10/25/19	10/24/20	Kapurthala	6/15/18	6/14/20			
Indianapolis Imx	9/8/17	5/31/20	Columbus COSI	9/15/14	6/30/20	Baltimore MSC	10/1/19	9/30/21			
Kuwait SCK	6/14/18	12/31/19	Davenport Put	10/1/12	4/28/20	Edmonton TWS	11/1/19	11/1/19			

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
ExtrWeat	Galveston	10/1/19	9/30/21	GC GCA	Seattle PSC 2	5/3/19	5/2/20	MOC	Sioux Falls	6/1/18	12/31/20
	Harrisburg	3/20/19	12/31/21		Singapore SC	3/16/19	3/15/20		Kansas City Sci	10/24/19	4/30/20
	Virginia Beach AMSC	9/3/19	10/12/21		Sudbury	2/15/19	6/30/20		Memphis Pink	2/9/19	5/22/20
	Baltimore MSC	3/1/19	6/30/21		Tijuana	2/22/19	2/22/20		Mobile	1/25/19	1/31/20
	Calgary TS	9/1/17	9/1/20		Toronto OSC	2/15/19	2/14/20		Sudbury	9/7/17	10/31/19
	Davenport Put	10/15/16	10/14/19		Vancouver TWS	2/15/19	2/14/20		Tallahassee CLC	5/1/19	11/1/20
	Edmonton TWS	6/2/17	6/1/20		Victoria DCI	2/15/19	2/14/20		Victoria DCI	8/30/19	9/15/20
	Kansas City Sci	10/15/16	10/14/19		Yellowstone	5/17/19	5/16/20		Pensacola NAM	11/8/96	
	Lodz CC	10/15/19	10/31/20		Grand Canyon DCI	11/1/99	12/19		Speyer Dome		12/31/19
	Louisville KSC	10/14/19	10/14/21		Grand Rapids Cel	9/1/18	7/31/20		Hague	10/1/15	12/19
Melbourne MV	4/1/19	3/31/20	Lansing Cel	5/1/19	7/31/20	Mumbai Gha INOX	1/1/18	12/31/19			
Memphis Pink	3/24/17	8/31/21	Portage Cel	9/1/18	7/31/20	Parker	1/30/19	1/29/20			
Philadelphia FI	2/11/17	12/31/19	Richmond SMV	6/1/16	12/31/19	Raleigh	11/1/15	10/17/19			
Raleigh	10/17/16	10/15/21	Charlotte DP	11/1/17	10/1/20	San Diego RHF	11/8/13	4/3/20			
Sacramento Imx	2/24/17	10/14/20	Des Moines	10/1/16	9/1/20	Tallahassee CLC	3/17	3/20			
Saint Augustine	10/15/16	10/16/20	Edmonton TWS	10/1/16	6/4/20	Louisville KSC	6/14/19	6/13/20			
Saint Louis SC	1/13/17	12/31/19	Mobile	10/18/17	10/31/20	Baton Rouge LASM	3/1/17	3/31/21			
Salt Lake City Clark	10/24/16	11/19/19	Seattle PSC 1	10/1/16	12/31/20	Cincinnati MC	2/1/19	12/31/19			
San Jose Tech	10/15/16	10/30/19	Vancouver TWS	10/1/16	2/5/20	Peoria RM	10/16/18	10/31/20			
Tallahassee CLC	5/19/17	5/1/20	Gatineau	10/7/16	3/31/20	Phoenix ASC	2/6/19	2/28/20			
FlyMons	Wroclaw CC	10/15/19	10/31/20	Hutchinson	7/1/17	12/31/19	ND Niagara	New Delhi ICC			
	Charlotte DP	5/26/18	12/31/19	San Jose Tech	10/31/18	1/31/20		Niagara Can DCI	7/1/86		
	Davenport Put	3/27/14	6/1/20	Syracuse MOST	6/1/19	6/1/20		Niagara NY DCI	5/1/07		
	Kenner	6/4/16	6/3/21	San Simeon DCI	8/17/96			Boston MOS	2/12/16	1/6/20	
	Killeen	9/15/17	9/15/20	Alamogordo	6/28/19	6/30/20		Branson	3/18/16	4/12/20	
	Leon Exp	3/1/19	11/30/19	Boston NEA	6/28/19	6/30/20		Carnival Horizon	4/1/18	10/6/20	
	Orlando SC	5/16/19	12/31/19	Chicago MSI	5/24/19	5/31/20		Carnival Vista	11/4/16	6/6/20	
	Hague	10/4/12	10/3/20	Lehi	6/28/19	6/30/20		Chattanooga TA	2/12/16	4/1/20	
	Harrisburg	2/28/19	2/27/21	Mobile	10/24/19	10/31/20		Cincinnati MC	1/1/19	2/1/21	
	Louisville KSC	6/18/15	7/2/20	New Orleans	5/9/19	5/31/20		Cleveland	7/1/17	3/31/20	
Lucerne STM	11/1/17	10/31/19	Peoria RM	11/1/19	10/31/20	Columbus COSI	3/8/18	9/3/20			
Portland OMSI ET	3/8/19	3/7/21	Seattle PSC 2	10/4/19	10/31/20	Dearborn THF	3/25/16	7/1/20			
Raleigh	2/1/12	10/21	Glasgow		2/28/20	Dongguan STM	1/25/17	12/31/19			
San Diego RHF	11/14	4/20	Grand Rapids Cel	5/2/19	7/31/20	Edmonton TWS	2/12/16	10/15/19			
Austin TSHM	1/11/13	3/31/20	Hampton VASC	9/7/18	12/31/19	Fort Worth	2/12/16	6/30/20			
Baton Rouge LASM	9/1/15	6/30/20	Lansing Cel	7/1/18	7/31/20	Grand Rapids Cel	10/1/18	7/31/20			
Davenport Put	2/15/13	6/30/20	Port of Spain	10/3/19	10/2/20	Harrisburg	7/1/16	7/2/20			
Dearborn THF	2/8/17	1/31/20	Portage Cel	5/2/19	7/31/20	Hartberg	6/1/19	6/1/21			
Edmonton TWS	12/26/13	6/30/20	Tallahassee CLC	2/1/19	2/28/20	Houston MNS	7/1/18	12/31/19			
Gatineau	10/5/12	6/30/20	New Orleans	9/15/15	12/31/19	Lansing Cel	10/1/18	7/31/20			
Harrisburg	2/2/14	6/30/20	Regina	10/1/19	10/31/19	London BFI Ode	2/12/16	7/31/20			
Hastings	3/17/13	6/30/20	Berlin CS	6/3/19	6/3/20	Mexicali	4/22/18	10/1/19			
Houston MNS	10/4/12	12/31/20	Boston MOS	2/13/15	12/31/19	Moscow Kin	9/17/16	12/1/19			
Lehi	1/19/19	9/19/20	Cincinnati MC	2/1/19	2/1/21	Pittsburgh CSC	2/12/16	12/31/19			
London BFI Ode	9/6/13	6/30/20	Edmonton TWS	10/2/15		Portage Cel	10/1/18	7/31/20			
Louisville KSC	9/30/12	6/30/20	Grand Rapids Cel	9/1/18	7/31/20	Raleigh	2/27/16	12/31/19			
Melbourne MV	3/21/13	9/13/20	Hangzhou LCSTM	6/1/19	5/31/20	Richmond SMV	4/10/16	12/31/19			
Memphis Pink	3/1/14	5/31/20	Lansing Cel	6/1/19	7/31/20	Rochester MSC	8/2/19	1/1/20			
Portland OMSI ET	1/7/14	6/30/20	Pittsburgh CSC	6/17/16	12/31/19	Sacramento Imx	2/19/16	3/25/20			
Raleigh	10/19/17	6/30/20	Portage Cel	9/1/18	7/31/20	San Jose Tech	2/12/16	11/1/19			
Regina	1/18/14	11/29/19	Richmond SMV	3/4/15	12/31/19	Shreveport	3/15/19				
Richmond SMV	5/1/13	6/30/20	Sacramento Imx	8/19/16	10/24/19	Sinsheim	3/4/16	7/31/20			
Sacramento Imx	8/13/13	6/30/20	Tallahassee CLC	1/1/19	2/28/20	Vancouver TWS	2/12/16	6/30/20			
Saint Augustine	1/18/13	12/31/20	Monterrey Pap	6/29/19	1/10/20	Athens Eug	3/1/19	3/31/20			
San Diego RHF	10/12/12	6/30/20	Nassau Fus	10/1/19	9/30/21	Garza Garcia	10/30/19	2/29/20			
Victoria DCI	4/5/13	6/30/20	Atlanta FMNH	9/30/17	12/31/19	Kuwait SCK	8/20/18	10/31/19			
Berlin CS	4/20/14	12/31/19	Phoenix ASC	10/19/18	10/31/19	New York AMNH	7/1/19	1/5/20			
Budapest CC	9/19/19	9/19/20	Victoria DCI	11/16/18	11/30/19	Norwalk MA	10/5/18	10/31/19			
Davenport Put	1/29/19	10/20/20	Albuquerque NMNH	9/1/19	8/31/20	Portland OMSI ET	4/20/18	4/30/20			
Fort Lauderdale	9/26/19	6/25/20	Dearborn THF	7/1/19	6/30/20	Stockholm	2/22/19	2/21/20			
Katowice CC	6/18/14	9/30/20	Hastings	9/1/19	8/31/20	Sudbury	3/9/19	6/30/20			
Krakow CC	6/18/14	9/30/20	Edmonton TWS	12/26/13	6/30/20	Tallahassee CLC	6/7/19	12/31/20			
Lodz CC	6/18/14	9/30/20	Galveston	11/1/19	4/30/20	Virginia Beach AMSC	1/1/19	1/31/20			
Melbourne MV	4/1/19	4/10/20	Hague	3/31/14	12/31/19	Shreveport	3/15/19				
Moscow Kin	10/6/14	5/5/21	Jersey City	9/1/18	8/31/20	Atlanta FMNH	1/31/19	2/1/20			
Poznan CC	6/18/14	9/30/20	London BFI Ode	1/1/14	12/31/19	Dearborn THF	10/1/19	9/30/20			
Prague CC	5/22/14	9/30/20	Louisville KSC	1/20/14	7/20/20	Poitiers Imax	2/9/19	2/8/20			
Salt Lake City Clark	11/1/18	10/31/19	Sacramento Imx	9/15/14	10/23/19	Sinsheim	3/28/19	3/27/20			
Warsaw CC	6/18/14	9/30/20	Salt Lake City Clark	12/21/18	11/21/19	Valencia Spn	1/7/19	6/30/20			
Wroclaw CC	10/4/17	9/30/20	San Diego RHF	11/20/15	4/3/20	Aguascalientes	10/1/19	9/30/20			
Alexandria BA	1/30/19	1/29/20	Speyer Dome	12/12/13	12/11/19	Charleston CCAS	1/1/19	1/1/21			
Atlanta FMNH	12/15/18	12/14/19	Harbin STM	12/1/18	12/1/19	Hague	6/9/15	12/19			
Chattanooga TA	5/24/19	5/23/20	Edmonton TWS	12/26/13	6/30/20	Louisville KSC	7/4/14	7/20/20			
Cleveland	8/1/18	10/1/19	Hague		6/30/20	Vantaa	1/27/17	1/26/20			
Edmonton TWS	7/1/18	9/14/20	Kuwait SCK	7/26/19	8/31/20	Bogota Mal	6/1/19	5/31/20			
Fort Lauderdale	10/5/18	10/4/19	Al Khobar	6/1/19	6/1/20	Dearborn THF	3/25/16	1/31/20			
Harrisburg	7/6/18	10/26/19	Dayton	3/6/15	12/1/19	Edmonton TWS	11/1/19	11/1/19			
Houston MNS	3/8/19	3/8/20	Hampton VASC	2/21/15	2/20/20	San Jose Tech	10/3/15	10/31/20			
Jersey City	11/23/18	11/22/19	KSC 1	2/27/15		Tallahassee CLC	10/16/15	11/8/19			
Lubbock SS	5/24/19	11/24/19	Kuwait SCK	10/1/19	11/2/19	Phoenix ASC	11/17/19	5/25/20			
Milwaukee	3/30/19	6/30/20	Pensacola NAM	4/1/15	11/30/19	Beijing 3D CSTM	1/1/19	6/30/20			
Port of Spain	1/30/19	1/29/20	Tallahassee CLC	6/22/18	6/21/21	Jersey City	11/2/19	11/1/20			
Saint Augustine	8/20/18	8/19/20	Thessaloniki SCTM	12/14/18	1/13/20	Philadelphia FI	2/2/19	2/2/21			
Atlanta FMNH	5/3/19	4/30/20	Toronto OSC	10/15/18	10/15/19	Victoria DCI	9/22/17	12/31/19			
Beijing 3D CSTM	5/2/19	5/5/20	Washington NASM	3/6/15		Al Khobar	7/1/19	7/1/20			
Boston MOS	7/5/19	1/6/20	Edmonton TWS	1/16/15		Hong Kong SM	1/1/19				
Calgary TS	10/18/19	4/18/20	Monterrey Pap	6/10/16	12/31/19	Melbourne MV	7/1/19	7/1/20			
Cleveland	11/1/19	11/1/20	Norwalk MA	7/1/14	12/31/19	Chantilly	7/12/19	7/12/20			
Edmonton TWS	9/15/19	9/14/20	Speyer Dome	5/25/17	12/31/19	Chicago MSI	8/2/19	5/25/20			
Fort Lauderdale	2/15/19	2/14/20	Davenport Put		4/26/20	Salt Lake City Clark	8/17/19	8/16/20			
Fort Worth	7/26/19	7/25/20	Raleigh	1/1/15	7/2/20	Valencia Spn	10/1/19	10/1/20			
Galveston	8/30/19	8/18/20	Sacramento Imx	7/1/15	12/31/19	Washington NASM	7/12/19	7/12/20			
Gatineau	7/2/19	7/1/20	Saint Augustine	6/14/20		Beijing 3D CSTM	4/1/19	3/31/20			
Hague	10/15/19	10/15/20	San Diego RHF		4/3/20	Hutchinson	9/8/17	3/31/20			
Harrisburg	2/15/19	2/14/20	Chantilly	5/1/15		McMinnville	10/1/18	10/31/20			
Houston MNS	11/8/19	11/7/20	Davenport Put	7/1/16	10/1/20	Singapore SC	5/15/18	5/15/21			
Jersey City	3/15/19	3/14/20	Edmonton TWS	10/31/19	12/31/19	Hutchinson	10/31/14	11/30/20			
Kansas City Sci	7/4/19	7/3/20	London BFI Ode	10/16/15		Shanghai 3D STM	2/1/19	2/1/20			
Lubbock SS	10/18/19	10/17/20	McMinnville	4/10/15	5/30/21	Albuquerque NMNH	4/19/19				
Milwaukee	9/1/19	9/27/20	Washington NASM	4/10/15		Anapa KC	8/29/19				
Montreal SC	10/1/19	9/30/20	Albuquerque NMNH	2/11/19	2/10/20	Astrakhan KM	8/29/19				
Orlando SC	2/23/19	2/22/20	Atlanta FMNH	2/9/18	2/8/20	Atlanta FMNH	5/15/19				
Phoenix ASC	10/12/19	10/11/20	Melbourne MV	1/30/17	1/28/20	Atlantic City	3/15/19				
Raleigh	3/1/19	2/28/20	Tallahassee CLC	8/14/18	8/13/20	Baku	8/29/19				
Regina	2/15/19	2/14/20	Victoria DCI	11/24/17	4/15/21	Baltimore MSC	7/1/19				
Saint Augustine	2/15/19	2/14/20	Davenport Put	6/1/17	5/31/20	Barnaul	8/29/19				
Saint Louis SC	11/29/19	11/28/20	Edmonton TWS	1/1/19	12/31/19	Birmingham AL	3/15/19				

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
Bradford		4/12/19		Richmond SMV		10/1/19		Denver MNS		8/22/19	8/21/20
Branson		3/15/19		Rostov-on-Don KM		8/29/19		Edmonton TWS		6/21/19	9/23/20
Carnival Horizon		3/15/19		Ryazan KM		8/29/19		Hastings		9/13/18	6/30/20
Carnival Vista		3/15/19		Sacramento Imx		3/15/19		Indianapolis Imx		5/17/19	11/16/19
Chantilly		3/15/19		Saint Augustine		8/19/19		Kuwait SCK		11/1/19	4/6/20
Charleston CCAS		7/15/19		Saint Louis SC		3/15/19		Melbourne MV		5/12/18	12/31/19
Charlotte DP		3/15/19		Saint Paul SMM		10/17/19		Omaha Zoo		9/1/19	2/28/20
Chattanooga TA		10/11/19	10/15/20	Saint Petersburg Ge FK		8/29/19		Sacramento Imx		9/21/18	5/31/20
Chelyabinsk CP		8/29/19		Saint Petersburg Pi FK		8/29/19		Sioux Falls		9/1/18	1/31/20
Chicago NP AMC		3/15/19		Saint Petersburg FK		8/29/19		Sudbury		12/7/18	6/30/20
Cincinnati MC		11/15/19	11/14/20	Saint Petersburg KS		8/29/19		Katowice CC			9/30/20
Cleveland		6/15/19		Salt Lake City Clark		3/30/19	3/29/20	Krakow CC			9/30/20
Columbus COSI		3/15/19		Samara KM		8/29/19		Lodz CC			9/30/20
Davenport Put		3/15/19		San Diego RHF		3/15/19		Poznan CC			9/30/20
Dearborn THF		3/15/19		San Jose Tech		3/22/19		Warsaw CC			9/30/20
Denver MNS		3/15/19		Saratov CP		8/29/19		Wroclaw CC			9/30/20
Edmonton TWS		3/15/19		Seattle PSC 2		3/15/19		Gatineau	7/30/18		3/30/20
Fort Lauderdale		4/19/19		Shreveport		3/15/19		Philadelphia FI	10/13/18		10/1/19
Fort Worth		3/15/19		Sioux Falls		6/1/19		Albuquerque NMMNH	10/15/18		10/14/19
Hague		6/18/19		Stavropol CP		8/29/19		Atlanta FMNH		9/6/19	9/5/20
Hampton VASC		3/15/19		Stockholm		10/25/19	10/25/20	Boston MOS		11/9/18	
Hastings		3/15/19		Sudbury		3/11/15		Charlotte DP	3/28/19		12/31/20
Houston MNS		4/26/19		Surgut CP		8/29/19		Chattanooga TA		6/28/19	12/28/19
Indianapolis Imx		3/15/19		Syktivkar		8/29/19		Chicago MSI		3/19	
Jersey City		6/24/19		Syracuse MOST		4/15/19		Cincinnati MC	12/28/18		12/31/21
Kaliningrad CP		8/29/19		Tallahassee CLC		3/15/19		Davenport Put		11/9/18	11/8/19
Kansas City Sci		6/14/19		Tijuana		7/21/19		Denver MNS		1/29/19	1/23/20
Kaohsiung NSTM		7/1/19		Tolyatti Mor		8/29/19		Edmonton TWS	10/12/18		6/30/20
Krasnodar		8/29/19		Tomsk KM		8/29/19		Garden City		10/1/19	9/30/20
Krasnoyarsk CP		8/29/19		Toronto OP		7/1/19		Gatineau		6/1/19	1/6/20
Kursk		8/29/19		Toronto OSC		4/12/19		Hong Kong SM		9/1/19	4/30/20
Lipetsk KM		8/29/19		Tula CP		8/29/19		Kagoshima MSC		12/18	12/19
Los Angeles CSC		3/15/19		Tumen CP		8/29/19		Kuwait SCK		6/4/19	12/31/19
Louisville KSC		3/15/19		Ufa CP		8/29/19		Lehi		10/13/18	10/12/19
Lubbock SS		3/10/19		Ulyanovsk CP		8/29/19		Los Angeles CSC		1/16/19	12/31/19
Melbourne MV		6/1/19		Vancouver TWS		5/1/19		Lubbock SS		7/5/19	1/30/20
Memphis Pink		9/14/19		Victoria DCI		5/1/19		Melbourne MV		3/21/19	3/20/20
Mobile		5/4/19		Virginia Beach AMSC		5/15/19		Milwaukee		9/1/19	8/31/21
Montreal SC		5/15/19		Vladivostok KM		8/29/19		Montreal SC	2/14/19		12/31/19
Moscow Kar		8/29/19		Vladivostok OCT		8/29/19		Philadelphia FI		9/15/19	9/30/20
Moscow Khi KS		8/29/19		Volgograd CP		8/29/19		Phoenix ASC		2/22/19	6/30/20
Moscow Kin		8/29/19		Voronezh CP		8/29/19		Portland OMSI ET	10/13/18		12/31/20
Moscow Koz KM		8/29/19		Washington NASM		3/15/19		Richmond SMV		6/1/19	5/31/20
Moscow Kun Kar		8/29/19		Yekaterinburg CP		8/29/19		Saint Louis SC		5/17/19	
Moscow Kut FK		8/29/19		Portland OMSI ET		1/26/18	1/31/20	Saint Paul SMM		9/19	
Moscow NY KS		8/29/19		Garza Garcia		4/13/19	10/13/19	Salt Lake City Clark		1/16/19	2/15/20
Moscow Pol FK		8/29/19		Harrisburg		2/1/18	3/31/21	San Diego RHF		11/9/18	
Moscow Pra KM		8/29/19		Memphis Pink		11/17/18	5/22/20	San Jose Tech		8/15/19	8/14/20
Moscow Sap FK		8/29/19		Monterey Pap		4/13/19	10/13/19	Shanghai 3D STM		10/19	10/20
Moscow Tit KM		8/29/19		Peoria RM		6/30/18	6/30/20	Toronto OSC		10/1/19	4/30/21
Moscow TS KS		8/29/19		Pittsburgh CSC		11/15/17	11/30/19	Valencia Spn		10/1/19	12/31/20
Mytishchi		8/29/19		Hutchinson		7/1/17	12/31/19	Victoria DCI		1/18/19	6/30/20
Naberezhnye CP		8/29/19		Phoenix ASC		12/1/18	12/31/19	Melbourne MV		1/4/18	2/1/21
Nizhny Novgorod CP		8/29/19		Huntsville USSRC		5/1/19	4/30/20	Portland OMSI ET		1/26/18	1/31/20
Norwalk MA		3/15/19		Glasgow		4/1/15	5/20/20	Richmond SMV		2/1/17	
Novokuznetsk FK		8/29/19		Grand Rapids Cel		6/2/18	7/31/20	Hastings		9/2/19	1/2/20
Novosibirsk CP		8/29/19		Lansing Cel		6/1/18	7/31/20	Louisville KSC		2/8/14	12/31/19
Omaha Zoo		5/1/19		Moscow Kin		11/1/16	12/1/19	Galveston		11/17/18	11/30/19
Orlando SC		4/1/19		Portage Cel		6/1/18	7/31/20	Saint Felicien		4/1/18	11/30/19
Peoria RM		3/30/19		Tallahassee CLC		2/1/19	2/28/20	San Diego RHF		12/7/18	12/31/19
Pern		8/29/19		Copenhagen TBP		4/14/19	4/13/20	Quantic		7/31/17	
Philadelphia FI		4/13/19		Edmonton TWS		11/1/19	11/1/19	Singapore DC		4/1/19	10/1/19
Pittsburgh CSC		11/23/19	11/23/20	Hong Kong SM		7/1/19	9/30/21	Monterey Pap	10/19/19		2/15/20
Portland OMSI ET		3/15/19		Huntsville USSRC		5/1/19	12/31/20	Portland OMSI ET		1/26/18	1/31/20
Quantic		5/10/19		KSC 1		5/1/19	4/30/20	Yellowstone		5/1/14	12/31/20
Raleigh		3/15/19		McMinnville		1/1/19	12/31/20				
Regina		3/15/19		TurtOdys		9/21/19	2/28/20				

Oct.-Nov. 2019 by Theater

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Aguascalientes	AMJ	4/5/19	12/31/19	Baltimore MSC	BackWild	3/1/19	6/30/20	Branson	SupDogs	4/12/19	
	Cuba	10/25/19	3/25/20		DreamBig	2/17/17	3/1/20		A11FSE	6/14/19	6/13/20
	DinoAliv	4/13/19	4/30/20		ExpChesa	10/1/19	9/30/21		NPA	3/18/16	4/12/20
Al Khobar	PTJH	10/1/19	9/30/20		ExtrWeat	3/1/19	6/30/21		SupDogs	3/15/19	
	JTS	6/1/19	6/1/20	Barnaul	SupDogs	7/1/19		Budapest CC	G3DNW	9/19/19	9/19/20
	SOE	7/1/19	7/1/20	Baton Rouge LASM	SupDogs	8/29/19		Calgary TS	ExtrWeat	9/1/17	9/1/20
Alamogordo	HiddPac	6/28/19	6/30/20		A11FSE	7/6/19	7/5/20		GBRF	10/18/19	4/18/20
Albuquerque NMMNH	ISR	9/1/19	8/31/20		AMJ	5/25/19	5/24/20	Carnival Horizon	NPA	4/1/18	10/6/20
	MA	2/11/19	2/10/20		DreamBig	6/30/17	12/31/19		SupDogs	3/15/19	
	SupDogs	4/19/19			FOTB	9/1/15	6/30/20	Carnival Vista	NPA	11/4/16	6/6/20
	Volcanoes	10/15/18	10/14/20		Mummies	3/1/17	3/31/21		SupDogs	3/15/19	
Alexandria BA	GBR3D	1/30/19	1/29/20	Beijing 3D CSTM	BackWild	11/1/19	8/5/20	Chantilly	A11FSE	5/17/19	5/17/29
Anapa KC	SupDogs	8/29/19			GBRF	5/2/19	5/5/20		DreamBig	2/17/17	2/16/20
Astrakhan KM	SupDogs	8/29/19			SRLIS	1/1/19	6/30/20		LITAOA	5/1/15	
Athens Eug	OOBP	3/1/19	3/31/20	Berlin CS	SpaceNex	4/1/19	3/31/20		SOTU	7/12/19	7/12/20
Atlanta FMNH	A11FSE	6/1/19	5/30/20		G3DNW	4/20/14	12/31/19	Charleston CCAS	SupDogs	3/15/19	
	AsterlME	1/11/18	1/10/20		HumpbWha	6/3/19	6/3/20		PTJH	1/1/19	1/1/21
	GBR3D	12/15/18	12/14/19	Birmingham AL	SupDogs	5/19/19	5/18/20		SupDogs	7/15/19	
	GBRF	5/3/19	4/30/20		SupDogs	3/15/19		Charlotte DP	BackWild	11/24/18	11/23/19
	IncrPred	9/30/17	12/31/19	Bogota Mal	RobotsNG	6/1/19	5/31/20		Cuba	9/1/19	9/1/20
	MA	2/9/18	2/8/20	Boston MOS	Cuba	2/15/19	2/29/20		DreamBig	8/26/17	12/31/19
	Penguins	1/31/19	2/1/20		GBRF	7/5/19	1/6/20		FlyMons	5/26/18	12/31/19
	SupDogs	5/15/19			HumpbWha	2/13/15	12/31/19		GlobSoun	11/1/17	10/1/20
	Volcanoes	9/6/19	9/5/20		NPA	2/12/16	1/6/20		SupDogs	3/15/19	
Atlantic City	SupDogs	3/15/19			Volcanoes	11/9/18		Chattanooga TA	Volcanoes	3/28/19	12/31/20
Austin Reg	AMJ	3/1/19	6/1/20	Boston NEA	AGWN	7/1/19	2/15/20		A11FSE	6/14/19	6/13/20
Austin TSHM	A11FSE	9/1/19	8/30/20	Bradford	HiddPac	6/28/19	6/30/20		BackWild	3/16/18	12/31/19
	FOTB	1/11/13	3/31/20		A11FSE	5/17/19	5/16/20		GBR3D	5/24/19	5/23/20
Baku	SupDogs	8/29/19			DreamBig	1/1/18	12/31/19		NPA	2/12/16	4/1/20

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close	
Chelyabinsk CP Chicago MSI	SupDogs	10/11/19	10/15/20	Garden City	ExpChesa	10/1/19	9/30/21	Kagoshima MSC	A11FSE	7/1/19	12/31/19	
	Volcanoes	6/28/19	12/28/19		GBRF	8/30/19	8/18/20	Kalininingrad CP	Volcanoes	12/18	12/19	
	SupDogs	8/29/19			Jerusale	11/1/19	4/30/20	Kansas City Sci	SupDogs	8/29/19		
	A11FSE	5/24/19	5/23/20		WOTA	11/17/18	11/30/19		ExtrWeat	10/15/16	10/14/19	
	Cuba	3/1/19	3/31/20		A11FSE	5/21/19	5/20/20		GBRF	7/4/19	7/3/20	
Chicago NP AMC Cincinnati MC	HiddPac	5/24/19	5/31/20	Garza Garcia	AsterME	5/19/17	6/18/20	MOC	10/24/19	4/30/20		
	SOTU	8/2/19	5/25/20		DreamBig	12/1/17	12/31/19		SupDogs	6/14/19		
	Volcanoes	3/19			Volcanoes	10/1/19	9/30/20	Kaohsiung NSTM	SupDogs	7/1/19		
	SupDogs	3/15/19			BackWild	6/27/19	10/31/19	Kapurthala	AMJ	6/15/18	6/14/20	
	A11FSE	9/28/19	9/27/20		OORP	10/30/19	2/29/20		Everest	6/15/18	6/14/20	
Cleveland	HumpbWha	2/1/19	2/1/21	Gatineau	TinyGian	4/13/19	10/13/19	Katowice CC	AfricAdv	9/30/20		
	Mummies	2/1/19	12/31/19		Arabia	4/24/18	3/30/20			G3DNW	6/18/14	9/30/20
	NPA	1/1/19	2/1/21		BackWild	6/1/18	3/31/20			TurtTale	9/30/20	
	SupDogs	11/15/19	11/14/20		Cuba	2/1/19	2/28/20		Kenner	FlyMons	6/4/16	6/3/21
	Volcanoes	12/28/18	12/31/21		D-Day	9/1/15	12/31/20		Killeen	FlyMons	9/15/17	9/15/20
Columbus COSI	A11FSE	5/18/19	5/17/20	Glasgow	Dolphins	7/9/18	3/20/20	Kolkata SC	AsterME	1/1/19	12/31/20	
	AmazAdv	1/9/18	6/30/20		Everest	7/30/18	3/30/20			Dolphins	3/1/19	12/1/19
	AMJ	3/23/18	3/31/20		FTB	10/5/12	6/30/20		Krakow CC	AfricAdv	9/30/20	
	DreamBig	3/17/17	3/31/20		GBRF	7/2/19	7/1/20			G3DNW	6/18/14	9/30/20
	GBR3D	8/1/18	10/1/19		GWS	10/7/16	3/31/20			TurtTale	9/30/20	
Columbus GA NIM Copenhagen TBP	GBRF	11/1/19	11/1/20	Grand Canyon DCI Grand Rapids Cel	VanGogh	7/30/18	3/30/20	Krasnodar Krasnoyarsk CP KSC 1	SupDogs	8/29/19		
	NPA	7/1/17	3/31/20		Volcanoes	6/1/19	1/6/20			SupDogs	8/29/19	
	SupDogs	6/15/19			AmazAdv	4/12/19	4/14/20			JTS	2/27/15	
	Bugs	9/15/14	6/30/20		HiUniv	4/1/15	2/28/20			TTS	5/1/19	4/30/20
	NPA	3/8/18	9/3/20		TTA	4/1/15	5/20/20		KSC 2	A11FSE	5/17/19	12/31/19
Corpus Christi Lex Davenport Put	SupDogs	3/15/19		Guangzhou GSC Guayaquil	GC	11/1/99	12/19	Kuwait SCK	SupDogs	8/29/19		
	TurtOdys	9/21/19	2/28/20		DreamBig	7/15/17	7/31/20			AmazAdv	6/14/18	12/31/19
	D-Day	1/31/18	12/1/19		GCA	9/1/18	7/31/20			BackWild	8/10/19	2/10/20
	A11FSE	6/12/19	6/11/20		HiUniv	5/2/19	7/31/20			DreamBig	6/25/17	8/31/20
	TTS	4/14/19	4/13/20		HumpbWha	9/1/18	7/31/20			JTM	7/26/19	8/31/20
Dearborn THF	ACGOTS	6/17/16		Hague	NPA	10/1/18	7/31/20	Lansing Cel	JTS	10/1/19	11/2/19	
	A11FSE	7/13/19	7/12/20		TTA	6/2/18	7/31/20			OORP	8/20/18	10/31/19
	BFTB	11/1/19	10/31/20		BackWild	5/1/19	5/1/20			TurtOdys	11/1/19	4/6/20
	Bugs	10/1/12	4/28/20		AMJ	4/16/19	4/15/20			Volcanoes	6/4/19	12/31/19
	DreamBig	2/24/17	3/31/20		BackWild	4/3/19	3/31/20			DreamBig	6/30/17	7/31/20
Denver MNS	ExtrWeat	10/15/16	10/14/19	Hampton VASC	A11FSE	5/21/19	11/21/19	Lehi	GCA	5/1/19	7/31/20	
	FlyMons	3/27/14	6/1/20		BackWild	2/12/19	2/11/20			HiUniv	7/1/18	7/31/20
	FTB	2/15/13	6/30/20		Everest	9/1/19				HumpbWha	6/1/19	7/31/20
	G3DNW	1/29/19	10/20/20		FON	10/4/12	10/3/20			NPA	10/1/18	7/31/20
	L&C		4/26/20		GBRF	10/15/19	10/15/20			TTA	6/1/18	7/31/20
Des Moines Dongguan STM	LITAOA	7/1/16	10/1/20	Hangzhou LCSTM Harbin STM	Jerusale	3/31/14	12/31/19	Louisville KSC	AMMM	9/6/19	9/5/20	
	Meerkats	6/1/17	5/31/20		JTM		6/30/20			BackWild	5/24/18	5/24/20
	SupDogs	3/15/19			MOTUW	10/1/15	12/19			FTB	1/19/19	9/19/20
	Volcanoes	11/9/18	11/8/19		PTJH	6/9/15	12/19			HiddPac	6/28/19	6/30/20
	A11FSE	5/25/19	5/24/20		SupDogs	6/18/19				Volcanoes	10/13/18	10/12/19
Edmonton TWS	ACGOTS	6/17/16	12/31/19	Harrisburg	A11FSE	6/15/19	6/14/20	London SM Los Angeles CSC	FlyMons	3/1/19	11/30/19	
	D-Day	5/26/17	12/31/19		ACGOTS	11/10/17	11/9/19			SupDogs	8/29/19	
	JTS	3/6/15	12/1/19		D-Day	10/17/18	10/17/19			AfricAdv	9/30/20	
	A11FSE	6/17/19	6/16/20		DreamBig	2/17/17	6/14/20			ExtrWeat	10/15/19	10/31/20
	AMJ	2/16/18	2/18/20		HiUniv	9/7/18	12/31/19			G3DNW	6/18/14	9/30/20
Fort Lauderdale	BackWild	8/1/18	2/29/20	Hartberg	JTS	2/21/15	2/20/20	Lubbock SS	TurtTale	9/30/20		
	DreamBig	2/17/17	7/1/20		SupDogs	3/15/19				AmazAdv	3/29/19	3/31/20
	FTB	2/8/17	1/31/20		HumpbWha	6/1/19	5/31/20			AMMM	9/1/18	2/6/20
	ISR	7/1/19	6/30/20		AGWN	12/1/18	12/1/19			FTB	9/6/13	6/30/20
	NPA	3/25/16	7/1/20		JMCSSO	12/1/18	12/1/19			Jerusale	1/1/14	12/31/19
Fort Worth	PlanPowe	10/1/19	9/30/20	Hastings	DreamBig	2/18/17	3/11/20	Melbourne MV	LITAOA	10/16/15		
	RobotsNG	3/25/16	1/31/20		ExpChesa	3/20/19	12/31/21			NPA	2/12/16	7/31/20
	SupDogs	3/15/19			FON	2/28/19	2/27/21			A11FSE	5/17/19	5/16/20
	A11FSE	5/17/19	5/16/20		FTB	2/2/14	6/30/20			A11FSE	7/15/19	10/3/19
	Cuba	10/19/18	10/31/19		GBR3D	7/6/18	10/26/19			BackWild	9/28/19	4/1/20
Galveston	SupDogs	3/15/19		Houston MNS	GBRF	2/15/19	2/14/20	Memphis Pink	SupDogs	3/15/19		
	TurtOdys	8/22/19	8/21/20		NPA	7/1/16	7/2/20			Volcanoes	1/16/19	12/31/19
	Volcanoes	1/24/19	1/23/20		TinyGian	2/1/18	3/31/21			BackWild	3/23/18	6/30/20
	GlobSoun	10/1/16	4/1/20		AMJ	4/6/19	4/15/20			DreamBig	2/17/17	2/28/20
	AGWN	1/1/19	12/31/19		NPA	6/1/19	6/1/21			ExtrWeat	10/14/19	10/14/21
Jersey City	NPA	1/25/17	12/31/19	Hutchinson	BFTB	10/25/19	10/24/20	Milwaukee	FON	6/18/15	7/2/20	
	AmazAdv	1/19/18	6/30/20		DreamBig	10/19/17	10/1/19			FTB	9/30/12	6/30/20
	BackWild	11/8/19	11/7/20		FTB	3/17/13	6/30/20			Jerusale	1/20/14	7/20/20
	Bugs	6/30/18	6/30/20		ISR	9/1/19	8/31/20			MountQues	6/14/19	6/13/20
	Cuba	2/1/19	2/28/20		SupDogs	3/15/19				PTJH	7/4/14	7/20/20
Kagoshima MSC	D-Day	3/1/18	12/31/19	Indianapolis Imx	TurtOdys	9/13/18	6/30/20	Kalininingrad CP	SupDogs	3/15/19		
	DreamBig	3/25/17	2/18/20		WildCats	9/2/19	1/2/20			WM	2/8/14	12/31/19
	ExpChesa	11/1/19	11/1/19		SOE	1/1/19				GBR3D	5/24/19	11/24/19
	ExtrWeat	6/2/17	6/1/20		TTS	7/1/19	9/30/21			GBRF	10/18/19	10/17/20
	FTB	12/26/13	6/30/20		Volcanoes	9/1/19	4/30/20			SupDogs	3/10/19	
Kolkata SC	GBR3D	7/1/18	9/14/20	Jersey City	AmazAdv	4/21/17	12/31/19	Krasnodar	Volcanoes	7/5/19	1/30/20	
	GBRF	9/15/19	9/14/20		BFTB	10/25/19	10/24/20			A11FSE	5/24/19	12/31/19
	GlobSoun	10/1/16	6/4/20		DreamBig	2/17/17	12/31/19			Cuba	10/25/19	10/31/20
	HumpbWha	10/2/15			FTB	10/4/12	12/31/20			FON	11/1/17	10/31/19
	Jerusale	12/26/13	6/30/20		GBR3D	3/8/19	3/8/20			LITAOA	4/10/15	5/30/21
KSC 1	JTM	12/26/13	6/30/20	Kursk	GBRF	11/8/19	11/7/20	Kuznetsk Alatau	SpaceNex	10/1/18	10/31/20	
	JTSP	1/16/15			NPA	7/1/18	12/31/19			TTS	1/1/19	12/31/20
	LITAOA	1/1/19	12/31/19		SupDogs	4/26/19				A11FSE	10/1/19	6/30/20
	Meerkats	1/1/19	12/31/19		A11FSE	6/1/19	5/30/20			AMMM	7/11/16	
	NPA	2/12/16	10/15/19		TSAB	5/1/19	4/30/20			ExtrWeat	4/1/19	3/31/20
Kuznetsk Alatau	RobotsNG	11/1/19	11/11/19	Lubbock SS	TTS	5/1/19	12/31/20	Kuznetsk Alatau	FTB	3/21/13	9/13/20	
	SupDogs	3/15/19			A11FSE	5/17/19	5/16/20			G3DNW	4/11/19	4/10/20
	TTS	11/1/19	11/11/19		ACGOTS	5/29/17	11/30/19			MA	1/30/17	1/28/20
	TurtOdys	6/21/19	9/23/20		AirRacer	1/19/18	1/31/20			SOE	7/1/19	7/1/20
	Volcanoes	10/12/18	6/30/20		Cuba	2/15/19	2/28/20			SupDogs	6/1/19	
Kuznetsk Alatau	BackWild	6/1/18	4/24/20	Lubbock SS	D-Day	12/31/17	1/31/20	Kuznetsk Alatau	TurtOdys	5/12/18	12/31/19	
	BFTB	10/25/19	10/24/20		GWS	7/1/17	12/31/19			Volcanoes	3/21/19	3/20/20
	DreamBig	2/17/17	6/6/20		SpaceNex	9/8/17	3/31/20			WildAfr	1/4/18	2/1/21
	G3DNW	9/26/19	6/25/20		SpacJunk	10/31/14	11/30/20			A11FSE	5/25/19	5/24/21
	GBR3D	10/5/18	10/14/19		TOTIA	7/1/17	12/31/19			Cuba	9/19/19	9/17/21
Kuznetsk Alatau	GBRF	2/15/19	2/4/20	Lubbock SS	A11FSE	7/12/19	5/31/20	Kuznetsk Alatau	ExtrWeat	3/24/17	8/31/21	
	SupDogs	4/19/19			AmazAdv	9/8/17	5/31/20			FTB	3/1/14	5/31/20
	A11FSE	5/17/19	5/16/20		DreamBig	1/17/19	1/16/20			MOC	2/9/19	5/22/20
	CRA	6/10/17	9/30/20		SupDogs	3/15/19				SupDogs	9/14/19	
	DreamBig	2/17/17	6/30/20		TurtOdys	5/17/19	11/16/19			TinyGian	11/17/18	5/22/20
Kuznetsk Alatau	GBRF	7/26/19	7/25/20	Lubbock SS	DreamBig	2/17/17	12/31/19	Kuznetsk Alatau	AMJ	9/22/18	10/1/19	
	NPA	2/12/16	6/30/20		GBR3D	11/23/18	11/22/19			NPA	4/22/18	10/1/19
	SupDogs	3/15/19			GBRF	3/15/19	3/14/20			AMJ	3/15/18	12/31/19
	AGWN	5/31/19	11/30/19		Jerusale	9/1/18	8/31/20			DreamBig	7/10/17	6/30/21
	AOTE	11/17/18	11/30/19		SFLIS	11/12/19	11/1/20			GBR3D	3/30/19	6/30/20
Kuznetsk Alatau	Cuba	3/9/19	3/31/20	Lubbock SS	SupDogs	6/24/19		Kuznetsk Alatau	GBRF	9/1/19	9/27/20	

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Mobile	Volcanoes	9/1/19	8/31/21	Portage Cel	GBR3D	1/30/19	1/29/20	San Jose Tech	A11FSE	5/17/19	5/16/20
	GlobSoun	10/18/17	10/31/20		HiidUniv	10/3/19	10/2/20		AMJ	2/17/18	11/1/19
	HiddPac	10/24/19	10/31/20		DreamBig	6/30/17	7/31/20		BFTB	10/25/19	10/24/20
	MOC	1/25/19	1/31/20		GCA	9/1/18	7/31/20		D-Day	5/15/19	6/30/20
Monterrey Pap	SupDogs	5/4/19		Portland OMSI ET	HiidUniv	5/2/19	7/31/20	San Simeon DCI	DreamBig	2/17/17	11/1/19
	AMJ	3/15/18	4/15/20		HumpbWha	9/1/18	7/31/20		ExtrWeat	10/15/16	10/30/19
	DreamBig	2/2/18	4/15/20		NPA	10/1/18	7/31/20		GWS	10/31/18	1/31/20
	Hurrican	6/29/19	1/10/20		TTA	6/1/18	7/31/20		NPA	2/12/16	11/1/19
Montreal SC	JTTSP	6/10/16	12/31/19	Poznan CC	A11FSE	5/17/19	5/16/20	Seattle PSC 1	RobotsNG	10/3/15	10/31/20
	TinyGian	4/13/19	10/13/19		AGWN	3/1/19	2/29/20		SupDogs	3/22/19	
	WWDPP3D	10/19/19	2/15/20		AmazAdve	2/16/18	2/16/20		Volcanoes	8/15/19	8/14/20
	GBRF	10/1/19	9/30/20		AOTE	1/26/18	1/31/20		HCBTD	8/17/96	
Moscow Kar	SupDogs	5/15/19		Prague CC	BackWild	9/7/18	6/30/20	Saratov CP	SupDogs	8/29/19	
	Volcanoes	2/14/19	12/31/19		DinoAliv	1/26/18	1/31/20		GlobSoun	10/1/16	12/31/20
	SupDogs	8/29/19			DSC	6/13/19	6/14/21		A11FSE	5/31/19	7/18/20
	SupDogs	8/29/19			FON	3/8/19	3/7/21		AGWN	10/5/18	10/5/19
Moscow Khi KS	AMJ	4/15/18	4/16/20	Raleigh	FOBT	1/7/14	6/30/20	Shanghai 3D STM	AmazAdve	11/10/17	
	DreamBig	9/10/17	6/2/20		OOBP	4/20/18	4/30/20		Cuba	6/14/19	6/30/20
	G3DNW	10/6/14	5/5/21		SupDogs	3/15/19			GBRF	5/3/19	5/2/20
	NPA	9/17/16	12/1/19		TA	1/26/18	1/31/20		HiddPac	10/4/19	10/31/20
Moscow Kin	SupDogs	8/29/19		Regina	Volcanoes	10/13/18	12/31/20	Shreveport	SupDogs	3/15/19	
	TTA	11/1/16	12/1/19		WildAfri	1/26/18	1/31/20		AGWN	1/1/19	1/1/20
	SupDogs	8/29/19			WWDPP3D	1/26/18	1/31/20		AMJ	7/24/19	7/23/20
	SupDogs	8/29/19			AfricAdv		9/30/20		BackWild	11/1/19	11/1/20
Moscow Koz KM	SupDogs	8/29/19		Richmond SMV	G3DNW	6/18/14	9/30/20	Singapore DC	SpacJunk	2/1/19	2/1/20
	SupDogs	8/29/19			TurtTale		9/30/20		Volcanoes	10/19	10/20
	SupDogs	8/29/19			G3DNW	5/22/14	9/30/20		A11FSE	7/4/19	7/3/20
	SupDogs	8/29/19			SupDogs	5/10/19			NPA	3/15/19	
Moscow Kun Kar	WTM	7/31/17		Rochester MSC	A11FSE	7/5/19	7/4/20	Singapore SC	Pandas	3/15/19	
	SupDogs	8/29/19			A11FSE	7/5/19	7/4/20		SupDogs	3/15/19	
	SupDogs	8/29/19			BackWild	6/4/18	6/30/20		Cuba	9/17/19	3/17/20
	SupDogs	8/29/19			D-Day	5/23/14	2/28/20		WTM	4/1/19	10/1/19
Moscow Kut FK	ExtrWeat	10/17/16	10/15/21	Saint Augustine	FON	2/1/12	10/21	Sinsheim	GBRF	3/16/19	3/15/20
	SupDogs	8/29/19			FOBT	10/19/17	6/30/20		SpaceNex	5/15/18	5/15/21
	SupDogs	8/29/19			GBRF	3/1/19	2/28/20		A11FSE	5/17/19	5/16/20
	SupDogs	8/29/19			L&C	1/1/15	7/2/20		NPA	3/4/16	7/31/20
Moscow Pol FK	MOTUW	1/1/18	12/31/19	Saint Petersburg FK	MOTUW	11/1/15	10/17/19	Sioux Falls	PlanPowe	3/28/19	3/27/20
	Dolphins	3/1/19	12/1/19		NPA	2/27/16	12/31/19		AmazAdve	12/2/17	5/31/20
	SupDogs	8/29/19			SupDogs	3/15/19			AMJ	2/1/19	5/30/20
	SupDogs	8/29/19			DreamBig	2/17/17	12/31/19		BackWild	2/1/19	5/31/20
Moscow Pra KM	SupDogs	8/29/19		Saint Petersburg PI FK	FOBT	1/18/14	11/29/19	Speyer Dome	DreamBig	6/2/17	5/30/20
	SupDogs	8/29/19			GBRF	2/15/19	10/10/20		Meerkats	6/1/18	12/31/20
	SupDogs	8/29/19			SupDogs	10/1/19	10/31/19		SupDogs	6/1/19	
	SupDogs	8/29/19			SupDogs	3/15/19			TurtOdy	9/1/18	1/31/20
Moscow Sap FK	AmazAdve	5/1/19	5/16/20	Saint Petersburg KS	AmazAdve	5/1/18	6/30/20	Stavropol CP	A11FSE	5/17/19	5/16/20
	BackWild	3/24/18	6/30/20		DreamBig	2/18/17	12/31/19		Dolphins	1/1/15	12/30/19
	JTTSP	7/1/14	12/31/19		FOBT	5/1/13	6/30/20		Jerusalem	12/12/13	12/1/19
	OOPB	10/5/18	10/31/19		GCA	6/1/16	12/31/19		JTTSP	5/25/17	12/31/19
Moscow TS KS	SupDogs	8/29/19		Sacramento Imx	HumpbWha	3/14/15	12/31/19	Sudbury	MOF		
	SupDogs	8/29/19			NPA	4/10/16	12/31/19		SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	10/1/19			Animalop	10/1/17	10/1/19
	SupDogs	8/29/19			Volcanoes	6/1/19	5/31/20		OOPB	2/22/19	2/21/20
Mumbai Gha INOX	SupDogs	8/29/19		Saint Petersburg PI FK	Volcanoes	6/1/19	5/31/20	Tallahassee CLC	SupDogs	10/25/19	10/25/20
	SupDogs	8/29/19			WildAfri	2/1/17			BackWild	9/4/18	6/30/20
	SupDogs	8/29/19			NPA	8/2/19	1/1/20		GBRF	2/15/19	6/30/20
	SupDogs	8/29/19			SupDogs	8/29/19			MOC	9/7/17	10/31/19
Mumbai NSC	SupDogs	8/29/19		Saint Petersburg PI FK	SupDogs	8/29/19		Syktivkar	OOPB	3/9/19	6/30/20
	SupDogs	8/29/19			A11FSE	7/12/19	7/1/20		SupDogs	3/11/15	
	SupDogs	8/29/19			AIWC	5/1/15	6/10/20		TurtOdy	12/7/18	6/30/20
	SupDogs	8/29/19			AmazAdve	9/8/17	6/30/20	Surgut CP	SupDogs	8/29/19	
Naberezhnye CP	ExtrWeat	2/24/17	10/14/20	Salt Lake City Clark	ExtrWeat	2/24/17	10/14/20	Syracuse MOST	SupDogs	8/29/19	
	DreamBig	2/17/17	11/9/19		FOBT	8/13/13	6/30/20		AmazAdve	2/16/19	2/15/20
	FMTTM	5/16/19	12/31/19		HumpbWha	8/19/16	10/24/19		GWS	6/1/19	6/1/20
	GBRF	2/23/19	2/22/20		Jerusale	9/15/14	10/23/19		SupDogs	4/15/19	
Nassau Fus	SupDogs	4/1/19		Samara KM	L&C	7/1/15	12/31/19	Taichung NMNS	BackWild	7/1/19	6/30/20
	SupDogs	8/29/19			NPA	2/19/16	3/25/20		A11FSE	7/12/19	7/11/20
	SupDogs	8/29/19			SupDogs	3/15/19			AmazAdve	4/28/17	6/30/20
	SupDogs	8/29/19			TurtOdy	9/21/18	5/31/20		AMJ	2/16/18	2/28/20
New Delhi ICC	SupDogs	8/29/19		Saint Petersburg PI FK	BackWild	8/17/19	8/16/20	Toluyati Mor	BackWild	10/18/18	6/30/20
	SupDogs	8/29/19			DreamBig	2/17/17	6/30/20		Cuba	1/18/19	6/30/20
	SupDogs	8/29/19			ExtrWeat	10/15/16	10/16/20		ExtrWeat	5/19/17	5/1/20
	SupDogs	8/29/19			FOBT	1/18/13	12/31/20		HiidUniv	2/1/19	2/28/20
New Orleans	SupDogs	8/29/19		Saint Petersburg PI FK	GBR3D	8/20/18	8/19/20	Toronto OP	HumpbWha	1/1/19	2/28/20
	SupDogs	8/29/19			GBRF	2/15/19	2/14/20		JTS	6/22/18	6/21/21
	SupDogs	8/29/19			L&C		6/14/20		MA	8/14/18	8/13/20
	SupDogs	8/29/19			SupDogs	8/19/19			MOC	5/1/19	11/1/20
New York AMNH	AOTE	4/1/18	11/30/19	Saint Petersburg PI FK	AOTE	4/1/18	11/30/19	Toulouise CDE	MOTUW	3/17	3/20
	WOTA	4/1/18	11/30/19		WOTA	4/1/18	11/30/19		OOPB	6/7/19	12/31/20
	Cuba	12/22/18	12/31/19		Cuba	12/22/18	12/31/19		RobotsNG	10/16/15	11/8/19
	ExtrWeat	1/13/17	12/31/19		ExtrWeat	1/13/17	12/31/19		SupDogs	3/15/19	
Niagara Can DCI	GBRF	11/29/19	11/28/20	Saint Petersburg PI FK	GBRF	11/29/19	11/28/20	Toronto OSC	TTA	2/1/19	2/28/20
	SupDogs	3/15/19			SupDogs	3/15/19			DreamBig	10/28/17	10/11/19
	Volcanoes	5/17/19	5/11/20		Volcanoes	5/17/19	5/11/20		JTS	12/14/18	1/13/20
	A11FSE	5/17/19	3/1/20		A11FSE	5/17/19	3/1/20		AGWN	4/12/19	4/11/20
Niagara NY DCI	Cuba	3/1/19	3/1/20	Saint Petersburg PI FK	Cuba	3/1/19	3/1/20	Tumen CP	Cuba	10/15/18	10/14/19
	SupDogs	10/17/19			SupDogs	10/17/19			GBRF	2/22/19	2/22/20
	Volcanoes	9/19			Volcanoes	9/19			SupDogs	7/21/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
Niagara Pol FK	SupDogs	8/29/19		Saint Petersburg PI FK	SupDogs	8/29/19		Ulyanovsk CP	ACGOTS	6/1/18	6/1/20
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	7/1/19	
	SupDogs	8/29/19			SupDogs	8/29/19			A11FSE	5/17/19	11/16/20
	SupDogs	8/29/19			SupDogs	8/29/19			AmazAdve	10/6/17	6/30/20
Niagara Zoo	ExtrWeat	10/24/16	11/19/19	Saint Petersburg PI FK	ExtrWeat	10/24/16	11/19/19	Valencia Spn	GBRF	2/15/19	2/14/20
	G3DNW	11/1/18	10/31/19		G3DNW	11/1/18	10/31/19		JTS	10/15/18	10/15/19
	Jerusale	12/21/18	11/21/19		Jerusale	12/21/18	11/21/19		SupDogs	4/12/19	
	SOTU	8/17/19	8/16/20		SOTU	8/17/19	8/16/20		Volcanoes	10/11/19	4/30/21
Orlando SC	SupDogs	3/30/19	3/29/20	Samara KM	SupDogs	3/30/19	3/29/20	Vancouver TWS	A11FSE	6/1/19	12/31/19
	Volcanoes	1/16/19	2/15/20		Volcanoes	1/16/19	2/15/20		SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			Bugs	7/1/14	6/30/20		SupDogs	8/29/19	
Peoria RM	SupDogs	8/29/19		San Diego RHF	FON	11/14	4/20	Tolyatti Mor	SupDogs	8/29/19	
	SupDogs	8/29/19			FOBT	10/12/12	6/30/20		SupDogs	8/29/19	
	SupDogs	8/29/19			Jerusale	11/20/15	4/3/20		SupDogs	8/29/19	
	SupDogs	8/29/19			L&C		4/3/20		SupDogs	8/29/19	
Parker	MOTUW	11/8/13	4/3/20	Saint Petersburg PI FK	MOTUW	11/8/13	4/3/20	Toronto OSC	Volcanoes	10/1/19	12/31/20
	SupDogs	3/15/19			Volcanoes	11/9/18			A11FSE	11/23/19	11/22/20
	Volcanoes	11/9/18	12/31/19		Volcanoes	11/9/18	12/31/19		AmazAdve	12/22/17	6/30/20
	WOTA	12/17/18			WOTA	12/17/18					
Pensacola NAM	SupDogs	8/29/19		Saint Petersburg PI FK	SupDogs	8/29/19		Toulouse CDE	SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
Perth	SupDogs	8/29/19		Saint Petersburg PI FK	SupDogs	8/29/19		Tula CP	SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
Philadelphia Fl	SupDogs	8/29/19		Saint Petersburg PI FK	SupDogs	8/29/19		Tumen CP	SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
	SupDogs	8/29/19			SupDogs	8/29/19			SupDogs	8/29/19	
Phoenix ASC	SupDogs	8/29/19		Saint Petersburg PI FK							

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Vantaa Victoria DCI	D-Day	11/7/15	11/13/19	Virginia Beach AMSC	MA	11/24/17	4/15/21	Wroclaw CC	DreamBig	2/17/17	2/16/20
	DreamBig	3/4/17	6/30/20		MOC	8/30/19	9/15/20		JTS	3/6/15	
	GBRF	2/15/19	2/14/20		SFLIS	9/22/17	12/31/19		LITAOA	4/10/15	
	GlobSoun	10/1/16	2/5/20		SupDogs	5/1/19			SOTU	7/12/19	7/12/20
	NPA	2/12/16	6/30/20		Volcanoes	1/18/19	6/30/20		SupDogs	3/15/19	
	SupDogs	5/1/19			BackWild	6/30/18	12/31/19		AfricAdv		9/30/20
	PTJH	1/27/17	1/26/20		ExpChesa	9/3/19	10/12/21		ExtrWeat	10/15/19	10/31/20
	A11FSE	9/20/19	9/19/20		OOBP	1/1/19	1/31/20		G3DNW	10/4/17	9/30/20
	ACGOTS	5/3/19	5/31/20		SupDogs	5/15/19			TurtTale		9/30/20
	AmazAdve	4/14/17	6/30/20		SupDogs	8/29/19		Yekaterinburg CP Yellowstone	SupDogs	8/29/19	
	AMMM	4/16/18	4/15/21		SupDogs	8/29/19			A11FSE	5/17/19	5/16/20
	BackWild	1/18/19	6/30/20		SupDogs	8/29/19			GBRF	5/17/19	5/16/20
	ConqOTS	8/18/17	5/14/21		SupDogs	8/29/19			Yell	5/1/14	12/31/20
	Cuba	3/29/19	3/31/20		AfricAdv		9/30/20				
	DreamBig	3/17/17	12/31/19		G3DNW	6/18/14	9/30/20				
	FOTB	4/5/13	6/30/20		TurtTale		9/30/20				
	GBRF	2/15/19	2/14/20		A11FSE	5/17/19	5/17/29				
	IncrPred	11/16/18	11/30/19		ACGOTS	5/26/17	5/25/20				
				Warsaw CC				Washington NASM			

Key to Film Abbreviations

Film	Title	Year	Dist	Film	Title	Year	Dist
A11FSE	Apollo 11: First Steps Edition	2019	MFF	Niagara	Niagara: Miracles, Myths, and Magic	1987	DCI
ACGOTS	Aircraft Carrier: Guardian of the Seas	2016	3D K2	NPA	National Parks Adventure	2016	3D MFF
AfricAdv	African Adventure 3D	2007	3D nWP	OOBP	Oceans: Our Blue Planet	2018	3D GSF
AGWN	Australia's Great Wild North	2018	K2	Pandas	Pandas	2018	3D IMAX
AirRacer	Air Racers 3D: Forces of Flight	2012	3D K2	Penguins	Penguins 3D	2013	3D nWP
AIWC	Adventures in Wild California	2000	MFF	PlanPowe	Planet Power	2018	3D nWP
AmazAdve	Amazon Adventure	2017	3D SKF	PTJH	Pandas: The Journey Home	2014	3D CPD
AMJ	America's Musical Journey	2018	3D MFF	RobotsNG	Robots	2015	3D CPD
AMMM	Amazing Mighty Micro Monsters 3D	2016	3D nWP	SeaRex	Sea Rex: Journey to a Prehistoric World	2010	3D 3DED
Animalop	Animalopolis	2008	3D K2	SFLIS	Search for Life In Space, The	2016	3D MFF
AOTE	Antarctica 3D: On the Edge	2014	3D GSF	SOE	Story of Earth, The	2018	3D DMD
Arabia	Arabia	2010	3D MFF	SOTU	Secrets of the Universe	2019	3D K2
AsterME	Asteroid: Mission Extreme	2016	3D CPD	SpaceNex	Space Next 3D	2015	3D B&D
BackWild	Backyard Wilderness	2018	3D SKF	SpacJunk	Space Junk	2012	3D K2
BFTB	Back From the Brink	2019	3D CPD	SupDogs	Superpower Dogs	2019	3D IMAX
Bugs	Bugs!	2003	3D SKF	TA	Tornado Alley	2011	3D GSF
ConqOTS	Conquest of the Skies	2017	3D nWP	TinyGian	Tiny Giants 3D	2014	3D GSF
CRA	Coral Reef Adventure	2003	MFF	TOTIA	Titans of the Ice Age	2013	3D GSF
Cuba	Cuba	2019	3D GSF	TSAB	To Space and Back	2017	CPD
D-Day	D-Day: Normandy 1944	2014	3D K2	TTA	To the Arctic	2012	3D MFF
DinoAliv	Dinosaurs Alive	2007	3D GSF	TTS	Touch the Stars	2019	3D B&D
Dolphins	Dolphins	2000	MFF	TurtOdys	Turtle Odyssey	2018	3D SKF
DreamBig	Dream Big: Engineering Our World	2017	3D MFF	TurtTale	Turtle's Tale: Escape from Paradise, A	2013	3D nWP
DSC	Deepsea Challenge 3D	2015	3D CPD	VanGogh	Van Gogh: Brush with Genius	2009	MFF
Everest	Everest	1998	MFF	Vikings	Vikings	2004	GSF
ExpChesa	Expedition Chesapeake	2019	B&D	Volcanoes	Volcanoes: The Fires of Creation	2018	3D SKF
ExtrWeat	Extreme Weather	2016	3D CPD	WildAfri	Wild Africa 3D	2015	3D GSF
FlyMons	Flying Monsters 3D	2011	3D CPD	WildCats	Wild Cats 3D	2015	3D nWP
FMTTM	Fly Me to the Moon	2008	3D nWP	WM	Watermelon Magic	2013	3D B&D
FON	Forces of Nature	2004	CPD	WOTA	Wonders of the Arctic	2014	3D GSF
FOTB	Flight of the Butterflies	2012	3D SKF	WTM	We, The Marines	2017	MFF
G3DNW	Galapagos 3D: Nature's Wonderland	2014	3D nWP	WWDP3D	Walking With Dinosaurs: Prehistoric Planet 3D	2014	3D GSF
GBR3D	Great Barrier Reef	2018	3D MFF	Yell	Yellowstone	1994	GSF
GBRF	Great Bear Rainforest	2019	3D MFF				
GC	Grand Canyon: The Hidden Secrets	1985	DCI				
GCA	Grand Canyon Adventure: River at Risk	2008	3D MFF				
GlobSoun	Global Soundscapes: Mission to Record the Earth	2016	3D FIC				
GWS	Great White Shark	2013	3D GSF				
HCBTD	Hearst Castle: Building the Dream	1996	DCI				
HiddPac	Hidden Pacific	2019	3D GSF				
HidUniv	Hidden Universe	2013	3D MFF				
HOTB	Hurricane on the Bayou	2006	MFF				
HumpbWha	Humpback Whales	2015	3D MFF				
Hurrican	Hurricane	2017	3D nWP				
IncrPred	Incredible Predators	2016	3D GSF				
ISR	In Saturn's Rings	2018	B&D				
Jerusale	Jerusalem	2013	3D CPD				
JMCSO	Jean-Michel Cousteau's Secret Ocean	2015	3D K2				
JTM	Journey to Mecca	2009	CPD				
JTS	Journey to Space	2015	3D K2				
JTTSP	Journey to the South Pacific	2013	3D MFF				
L&C	Lewis & Clark: Great Journey West	2002	CPD				
LITAOA	Living in the Age of Airplanes	2015	CPD				
MA	Museum Alive 3D	2016	3D nWP				
Meerkats	Meerkats 3D	2012	3D CPD				
MOC	Mysteries of China	2016	3D GSF				
MOF	Magic of Flight, The	1997	MFF				
MOTUW	Mysteries of the Unseen World	2013	3D CPD				
MounQues	Mountain Quest	2018	K2				
Mummies	Mummies: Secrets of the Pharaohs	2007	GSF				
ND	Neelkanth Darshan	2005	unk				

Oct.-Nov. 2019 Bookings Count

#	Film	#	Film	#	Film	#	Film
120	SupDogs	7	FON	4	Mummies	1	AIWC
56	A11FSE	7	HidUniv	4	PlanPowe	1	Animalop
41	DreamBig	6	AfricAdv	4	SFLIS	1	Arabia
34	Volcanoes	6	GlobSoun	4	SpaceNex	1	ConqOTS
32	GBRF	6	LITAOA	3	AOTE	1	CRA
31	BackWild	6	MOC	3	AsterME	1	DSC
30	NPA	6	MOTUW	3	Everest	1	FMTTM
22	FOTB	6	TinyGian	3	IncrPred	1	GC
21	AmazAdve	6	TTA	3	ISR	1	HCBTD
20	AMJ	6	TTS	3	JTM	1	JMCSO
19	Cuba	6	TurtTale	3	Meerkats	1	MounQues
18	ExtrWeat	5	ExpChesa	3	SOE	1	ND
14	G3DNW	5	FlyMons	3	WildAfri	1	Pandas
13	GBR3D	5	L&C	3	WOTA	1	Penguins
12	HumpbWha	5	MA	2	DinoAliv	1	SeaRex
11	D-Day	5	PTJH	2	HOTB	1	TA
11	TurtOdys	5	RobotsNG	2	Hurrican	1	TSAB
10	JTS	5	SOTU	2	VanGogh	1	VanGogh
10	OOBP	4	AMMM	2	Niagara	1	Vikings
10	AGWN	4	Bugs	2	SpacJunk	1	WildCats
8	ACGOTS	4	GCA	2	TOTIA	1	WM
8	HiddPac	4	GWS	2	WTM	1	Yell
7	BFTB	4	JTTSP	2	WWDP3D		
		1	AirRacer				

Directory of Organizations Mentioned in this Issue of LF Examiner

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POSITION OPEN

Temporary Program Director, NSF

The Division of Research on Learning in Formal and Informal Settings (DRL), in the Directorate for Education and Human Resources (EHR) announces a nationwide search for temporary Program Directors at the **National Science Foundation**. Applications will be reviewed beginning October 15, 2019.

DRL is seeking a program officer with expertise in research or development of media in Science, Technology, Engineering or Mathematics (STEM) education. This includes but is not limited to expertise in one or more of the following areas: education media (broadcast TV/film/radio/web-based); transmedia production; interactive media; and assessment of STEM learning via media products.

DRL supports innovative research, development, and evaluation of learning and teaching across all science, technology, engineering and mathematics (STEM) disciplines in both formal and informal learning settings, and in any age group. A major goal of DRL research and development awards is to enhance the science of broadening participation in STEM. DRL programs support innovations in theory, methods, measurement, development, and applications in STEM education.

Duties and Responsibilities

Successful candidates will be expected to work collaboratively with staff and other program officers primarily in the Advancing Informal STEM Learning (AISL) program but may work in other DRL programs as appropriate. They will also be expected to work closely with staff across divisions and directorates on cross-cutting programs of importance to the mission of the Agency.

NSF Program Directors have an unparalleled opportunity and responsibility to ensure NSF-funded research and development activities are at the forefront of advancing fundamental knowledge. In support of that, Program Directors are responsible for extensive interaction with academic research communities, formal and informal educational organizations, industry, as well as interaction with other Federal agencies that may lead to development of interagency collaborations. Within this context, Program Directors solicit, receive and review research and education proposals,

make funding recommendations, administer awards and undertake interaction with research communities in these fields. The position requires a commitment to the highest research standards and ethical conduct, a considerable breadth of interest, receptivity to new ideas, a strong sense of fairness, good judgment, and a high degree of personal integrity.

Qualifications

Candidates must have a Ph.D. in a STEM or media related field, plus after award of the degree, six or more years of successful media development, production, research/evaluation administration, and/or managerial experience pertinent to the position; OR a Master's Degree in an appropriate field, plus after award of the degree, eight or more years of successful development, production, research/evaluation administration, and/or managerial experience pertinent to the position.

A successful candidate will have experience in research, production, or distribution of a range of education media and will be knowledgeable about trends and emerging media technologies. The ability to mentor or support researchers and developers in the area and to evaluate proposals and work products is essential. Ideal candidates will have expertise in a STEM discipline or STEM learning. Expertise in quantitative and/or qualitative research methodologies is highly desired

The position may be filled with one of the following appointment options: *Intergovernmental Personnel Act (IPA) Assignment*: Individuals eligible for an IPA assignment with a Federal agency include employees of State and local government agencies or institutions of higher education, Indian tribal governments, and other eligible organizations in instances where such assignments would be of mutual benefit to the organizations involved. Initial assignments under IPA provisions may be made for a period up to two years, with a possible extension for up to an additional two-year period. The individual remains an employee of the home institution and NSF provides the negotiated funding toward the assignee's salary and benefits. Initial IPA assignments are made for a one-year period and may be extended by mutual agreement. For additional information regarding IPA positions, please visit the NSF website at: <https://www.nsf.gov/careers/rotator/ipa.jsp>

Visiting Scientist, Engineer or Educator (VSEE) Appointment: A VSEE appointment will be made under the Excepted Authority of the NSF Act. Visiting Scientists are on non-paid leave status from their home institution and placed on the NSF payroll as Federal employees. NSF withholds Social Security taxes and pays the home institution's contributions to maintain retirement and fringe benefits (i.e., health benefits and life insurance), either directly to the home institution or to the carrier. Appointments are usually made for one year and may be extended for an additional year by mutual agreement. For additional information regarding VSEE positions, please visit the NSF website at: <https://www.nsf.gov/careers/rotator/vsee.jsp>

Temporary Excepted Service Appointment: Appointment to this position will be made under the Excepted Authority of the NSF Act. Candidates who do not have civil service status or reinstatement eligibility will not obtain civil service status if selected. Candidates currently in the competitive service will be required to waive competitive civil service rights if selected. Usual civil service benefits (retirement, health benefits and life insurance) are applicable for appointments of more than one year. Temporary appointments may not exceed three years.

For additional information on NSF's rotational programs, please see "Programs for Scientists, Engineers, and Educators" on the NSF website at: <https://www.nsf.gov/careers/> and <https://www.nsf.gov/careers/rotator/>

It is NSF policy that NSF personnel employed at or IPAs detailed to NSF are not permitted to participate in foreign government talent recruitment programs. Failure to comply with this NSF policy could result in disciplinary action up to and including removal from Federal Service or termination of an IPA assignment and referral to the Office of Inspector General. <https://www.nsf.gov/careers/Definition-of-Foreign-Talent-HRM.pdf>

Applications will be accepted from U.S. citizens. Recent changes in Federal Appropriations Law require non-citizens to meet certain eligibility criteria to be considered. Therefore, non-citizens must certify eligibility by signing and attaching this Citizenship Affidavit to their application. This also applies to individuals considered for Intergovernmental Personnel Act (IPA) assignments to NSF. Non-citizens who do not provide the affida-

vit at the time of application will not be considered eligible.

How to Apply

Applicants should submit a current curriculum vitae and a statement of interest to dlrrecruit@nsf.gov with "Program Director Position" and this DCL number in the subject line of the email.

Along with your application, please provide responses to the following:

Quality Ranking Factors

Knowledge of and contributions to STEM learning via one of the areas listed above.

Evidence of collaborative work with evaluators, researchers, and designers of learning media products.

Research, analytical, and/or technical writing expertise as evidenced by publications, presentations or other documents.

Ability to interact, on a peer basis, with practitioners, administrators, senior scientific and managerial personnel in governmental agencies, academia, non-profits, and the private sector.

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SHORTS

Casey starts filming *Fire Fighters*

Sean Casey has begun shooting for his next giant-screen film, *Fire Fighters*, capturing scenes of the wildfires in southern California in October, with plans to continue shooting through the end of the fire season early next year. Shooting will resume in the summer of 2020, with plans for a 2021 release.

Casey tells *LFX* that he and his crew have been given broad access to shoot with fire crews, in the command centers, and in the air tankers and helicopters that drop water on the fires. He says that, inspired by Todd Douglas Miller's *Apollo 11*, he intends to make *Fire Fighters* without narration.

GSCA board election results

The Giant Screen Cinema Association has announced that the following people have been elected to its board of directors for a two-year term, starting on Jan. 1, 2020. Members are elected to represent one of four industry segments.

Distributors: Antonietta Monteleone, Cosmic Picture.

Other Related Businesses: Michael Daut, Michael Daut Productions; Brian Eimer, ImagesInSound; Don Kempf, D3D Cinema.

Production: Taran Davies, Cosmic Picture; Meghan MacGillivray, MacGillivray Freeman Films

Theaters: Deborah Barnhart, US Space and Rocket Center; Phillip Crabtree, National Naval Aviation Museum Foundation; Michelle Duncan, The Tech Interactive; Heather Farnworth, Ontario Science Centre; Don Walker, Tennessee Aquarium.

They join the following members who have a year left on their terms.

Distributors: Mary Jane Dodge, MacGillivray Freeman Films; Tina Ratterman, BIG & Digital.

Other Related Businesses: Rick Gordon, RPG Productions; Patricia Keighley, Imax Corporation.

Production: Christian Fry, CVF Productions; Phil Streather, Principal Large Format.

Theaters: Caroline Borgudd, Swedish Museum of Natural History; Julie La Roche, Montreal Science Centre; Alan Nursall, TELUS World of Science-Edmonton; Joanie Vandenburg Philipp, Discovery Place.

Euromax, the European GS association, will appoint an *ex officio* director, to be announced.

The new board will elect officers and announce them in December.

GSCA opens Expo registration

Registration and film submissions for the Giant Screen Cinema Association's Film Expo in Los Angeles in March are now open. The meeting will be held on March 9-10, 2020, and will feature screenings of new films and films in production and development. The deadline for submitting films is Jan. 24.

The association is also accepting proposals for presentations in the GS Innovations session (formerly the Technical Session). The deadline for submissions is Dec. 11.

For more information on the Film Expo and to submit films or proposals, visit giantscreencinema.com.

Niagara IMAX may relocate

The city council of Niagara Falls, ON, Canada, has approved a plan to build a hotel on the site of the 40-year-old Niagara Falls IMAX Theatre, built and operated by Destination Cinema, Inc. Under the plan, the theater would be relocated to another site.

According to president, Robert Perkins, DCI sold the land and the building to Canadian Niagara Hotels in 2014, and has been leasing the property since then, while exploring other sites for the theater. No details were immediately available about when the theater might close for demolition, or where or when its replacement might open.

The Niagara Falls IMAX opened in May 1979, one of the first permanent giant-screen theaters in the world, and the first of seven developed by DCI. Equipped with an IMAX GT 15/70 film projector,

620 seats, and a 61x82-foot (17x25-meter) screen, it is the fifth-oldest GS theater still operating.

Great Bear wins at Jackson

In September *Great Bear Rainforest*, produced by Spirit Bear Entertainment and distributed by MacGillivray Freeman Films, won the prize for Best Engaging Youth Film at the 2019 Jackson Wild Summit (formerly the Jackson Hole Wildlife Film Festival) in Jackson Hole, WY. The award is presented to the program that "most effectively inspires an appreciation of the natural world, or issues associated with animals and the environment to young people 6-12 years of age."

Directed by Ian McAllister and produced by Jeff Turner, *Great Bear Rainforest* also won the prize for Best Cinematography at the 2019 Giant Screen Cinema Association conference (see page 1.)

Jackson Wild has announced that its 2020 Summit will be held in the Neusiedler See-Seewinkel National Park outside Vienna, Austria, from Sept. 28 to Oct. 2.

Erie theater closes temporarily

The Big Green Screen at the Tom Ridge Environmental Center in Erie, PA, closed in late September, temporarily, according to the center's Web site. Sources tell *LFX* that three staffers have been laid off, although at least one transferred to another department within the Pennsylvania state government, which operates the facility. Although the 175-seat auditorium is expected to continue to be used as a theater and meeting space, it is unclear when or if it will resume showing GS films.

Opened in 2006 with a Kinoton 8/70 film projector, the theater has a 33x55-foot (10x14-meter) screen. A Christie 2K projector was added in February 2013, and the film projector has not been used since.

The Tom Ridge Environmental Center is "dedicated to teaching visitors about the unique 3,200 acres of Presque Isle and the

(see *SHORTS* on page 15)